

Fig. 1

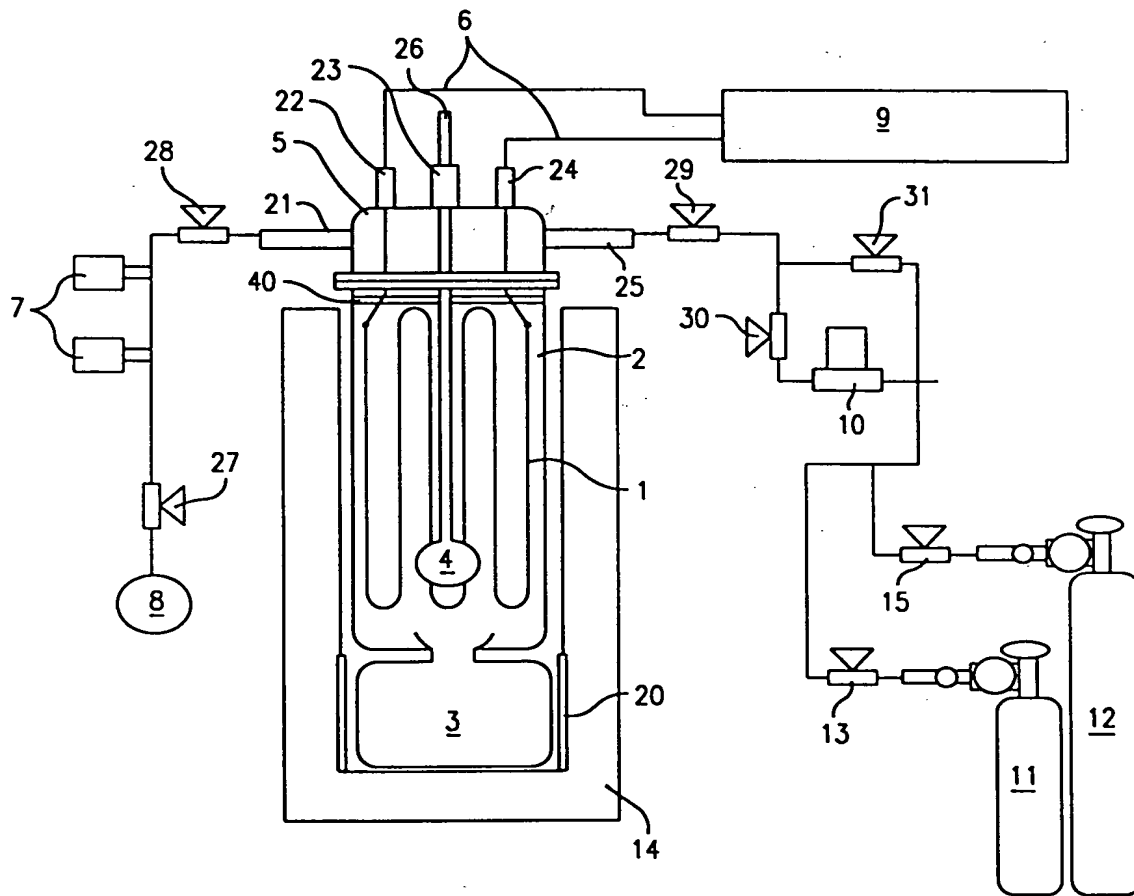


Fig. 2

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

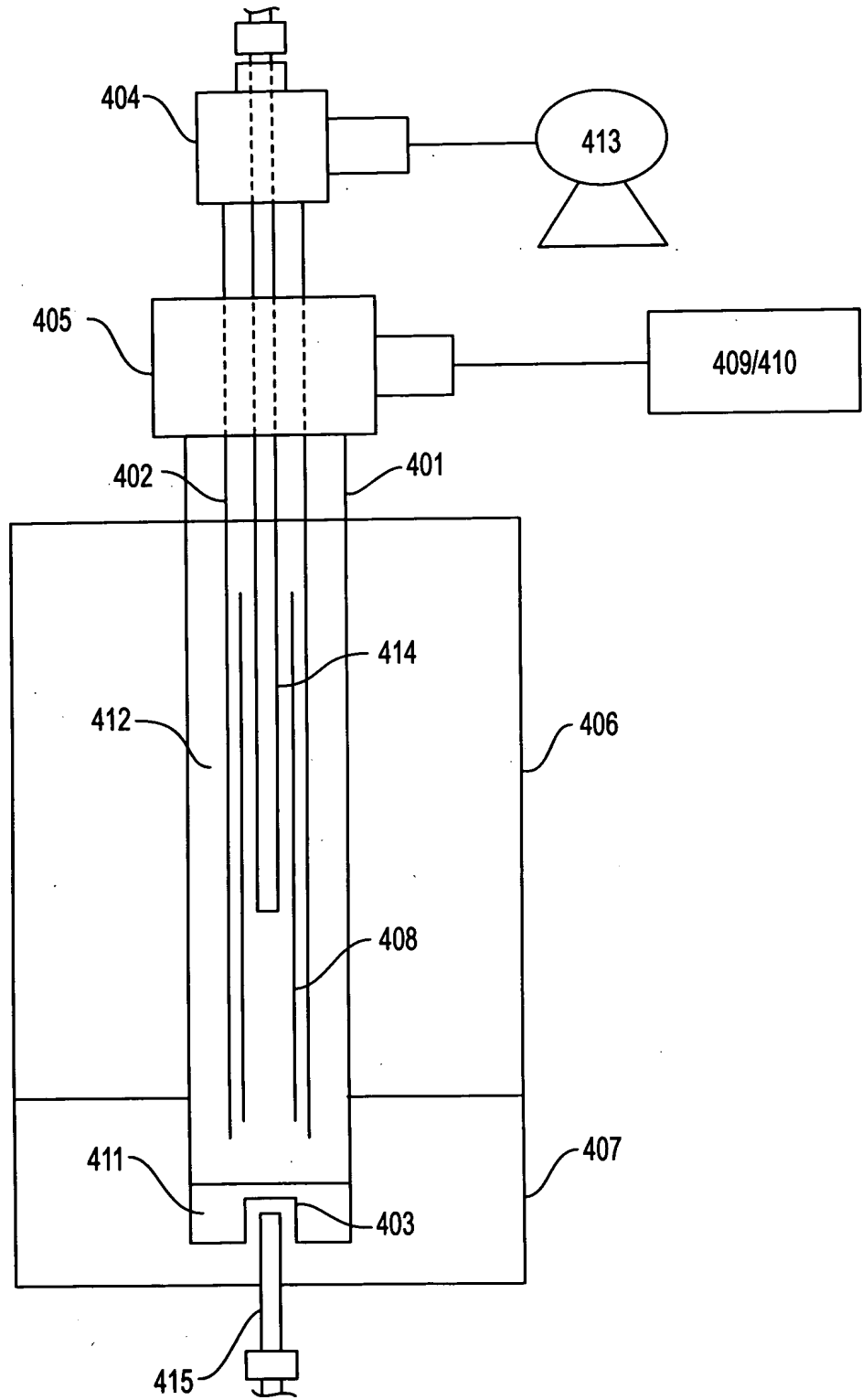


FIG. 3

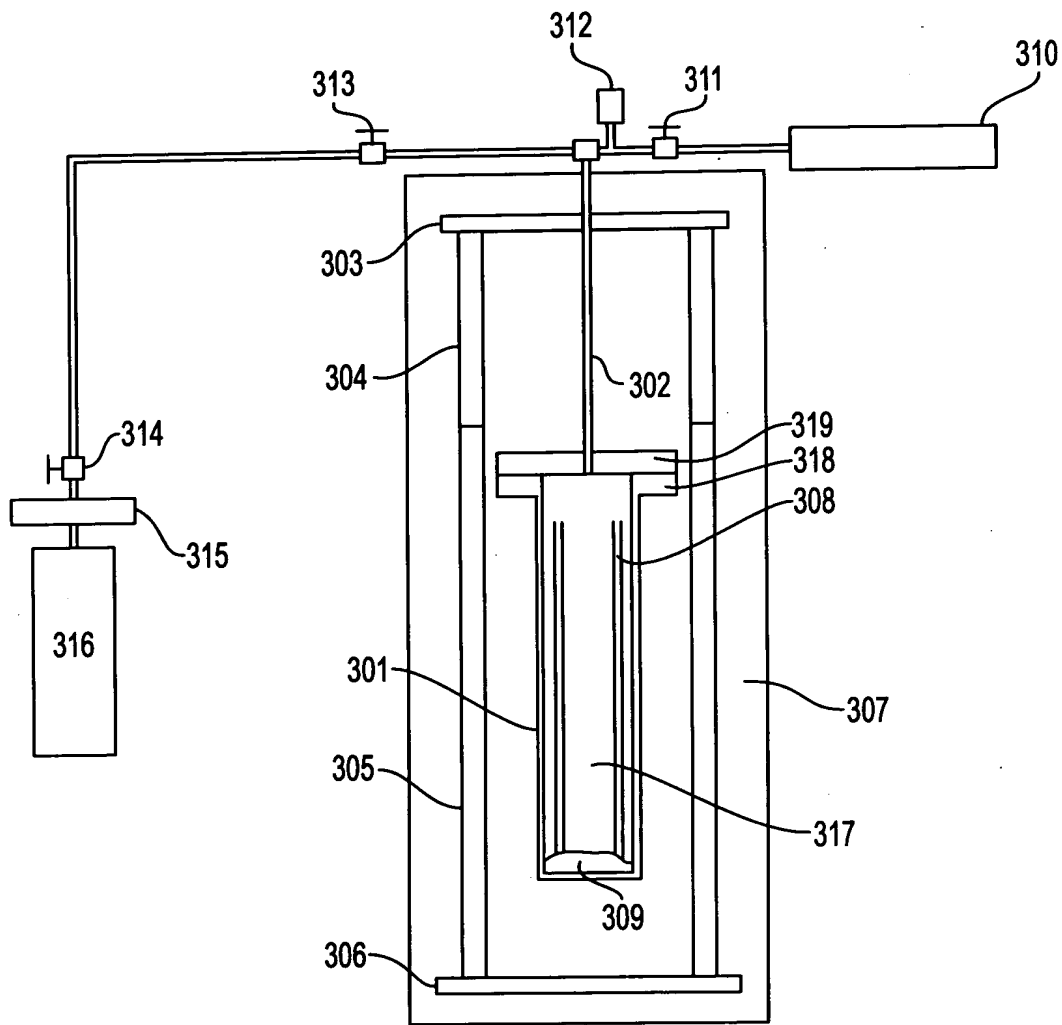


FIG. 4

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 5A

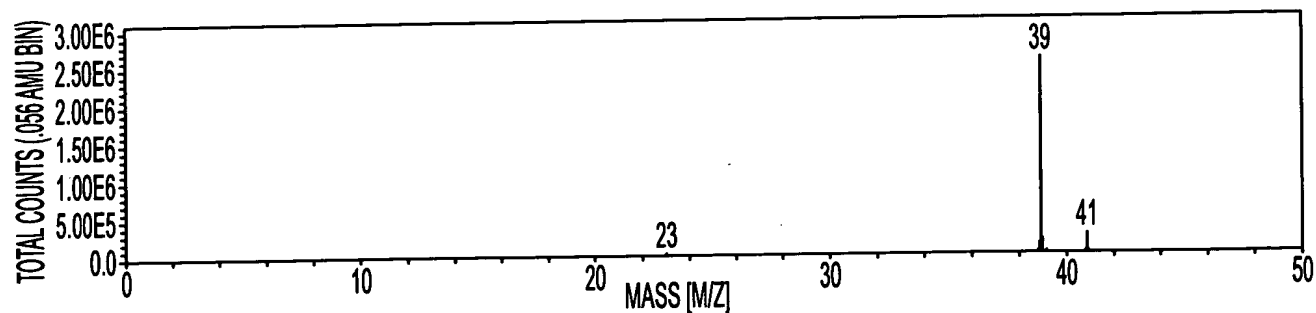


FIG. 5B

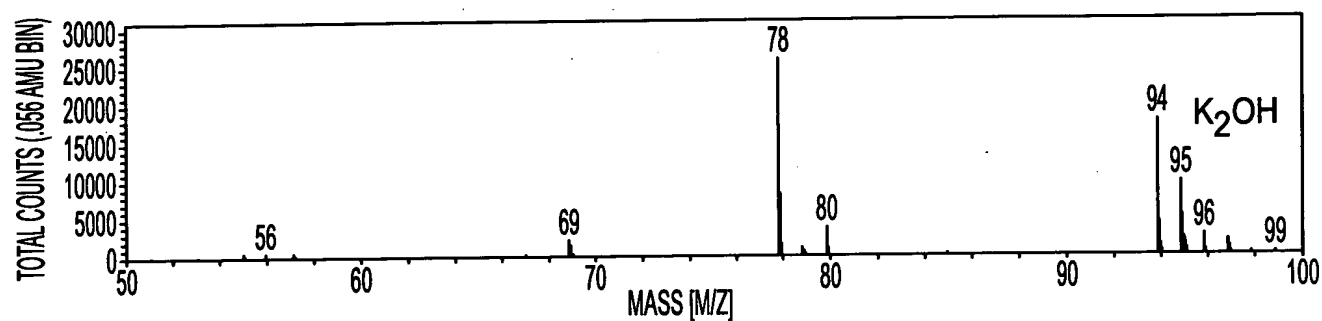


FIG. 5C

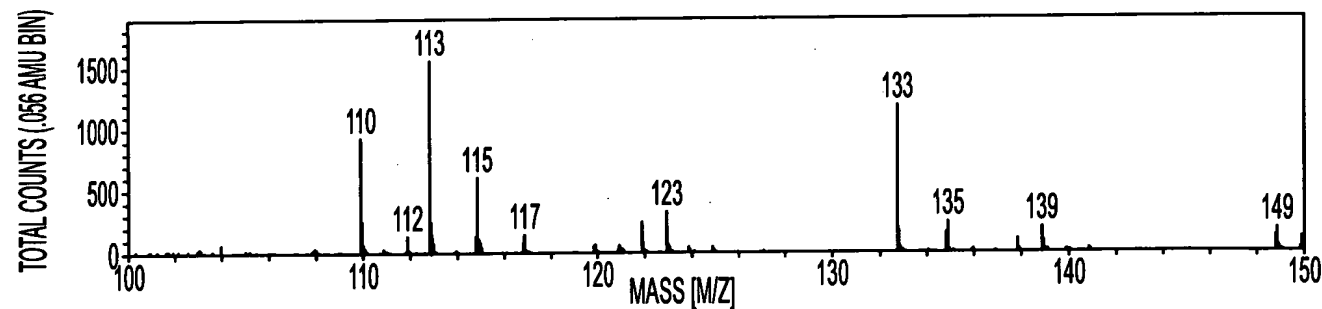


FIG. 5D

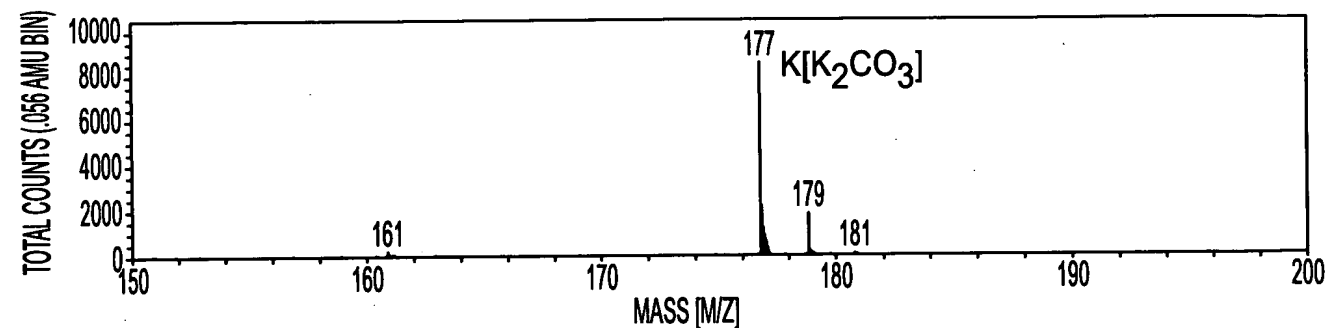


FIG. 6A

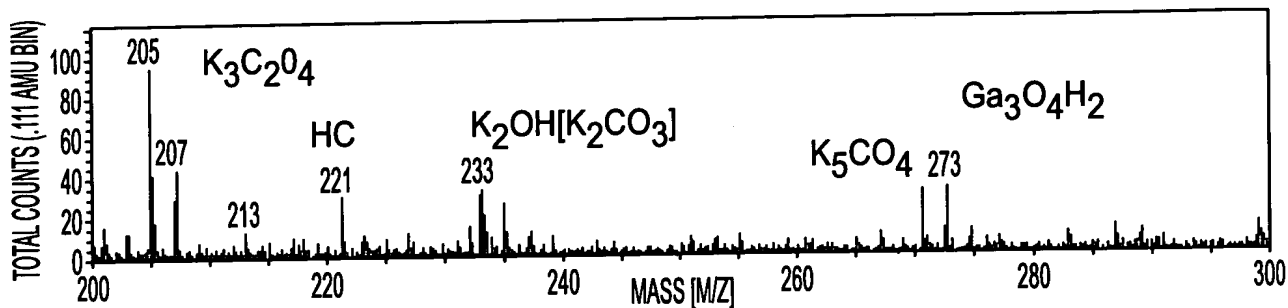


FIG. 6B

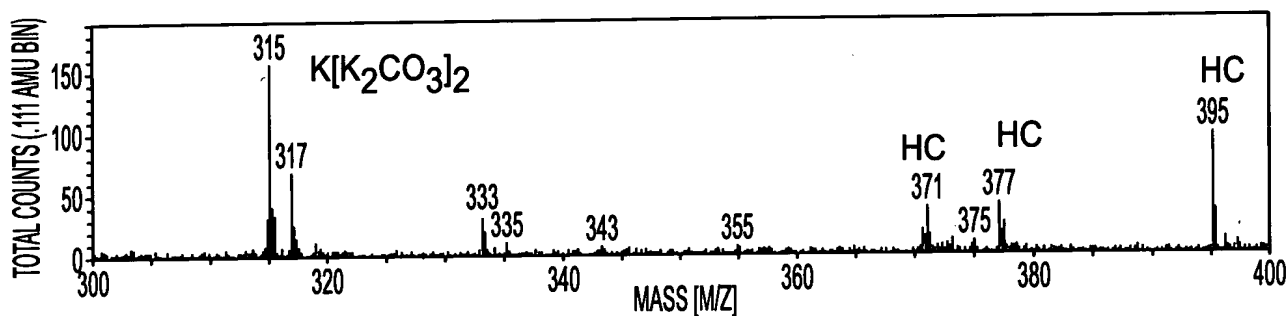


FIG. 6C

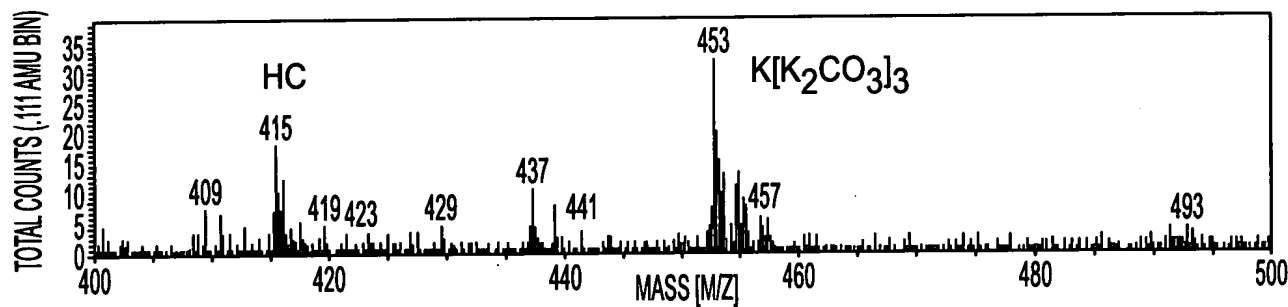
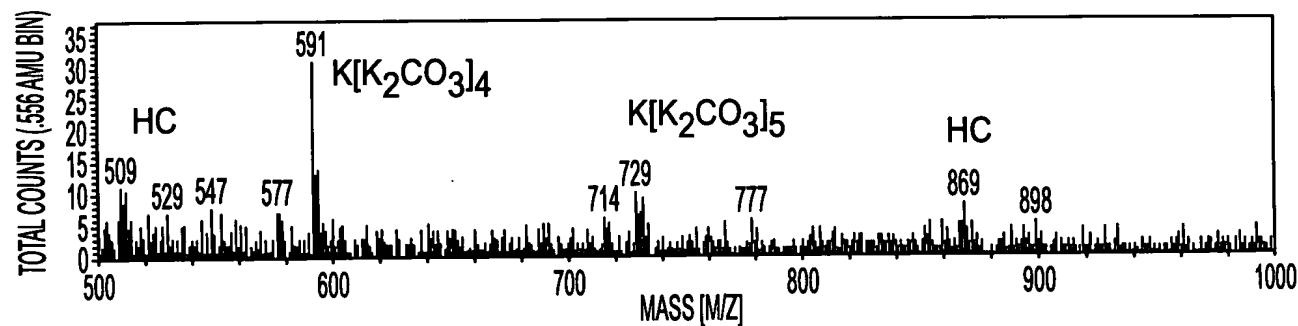


FIG. 6D



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 7A

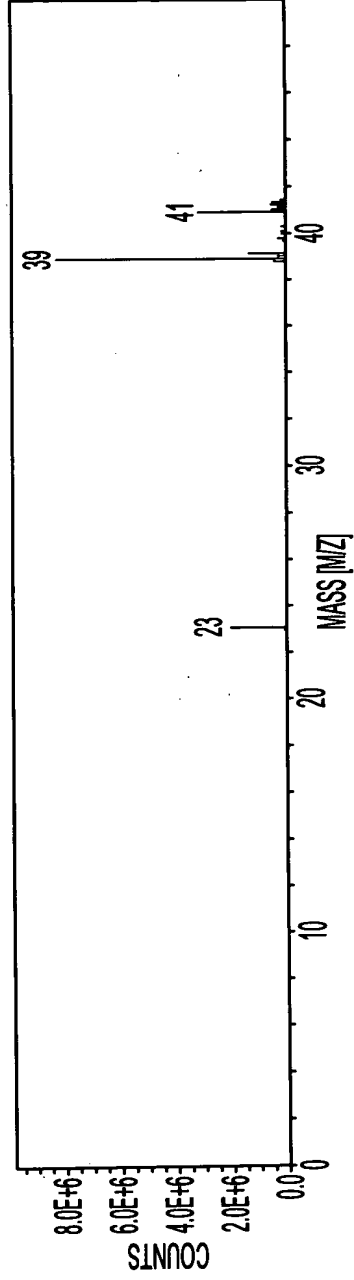
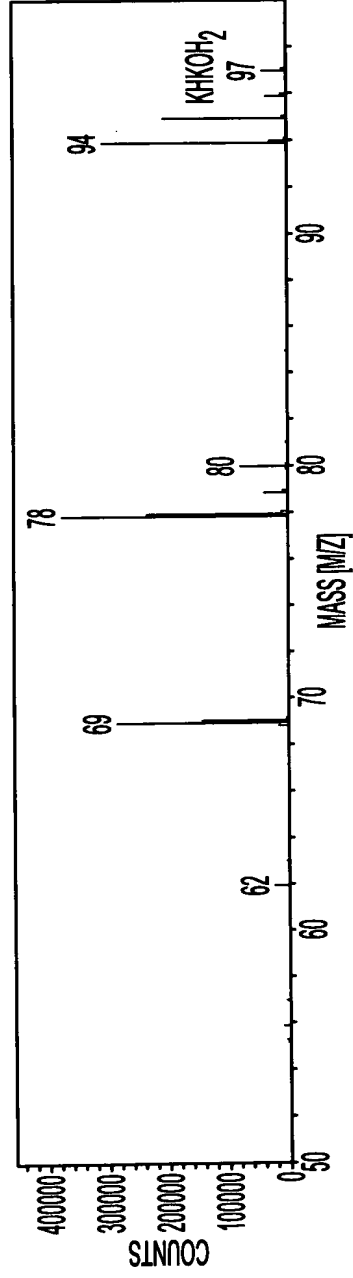


FIG. 7B



APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 7C

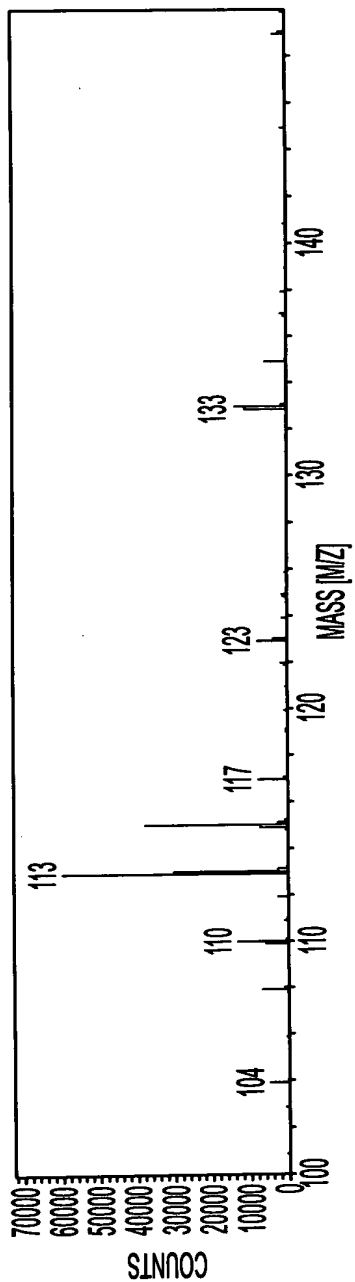
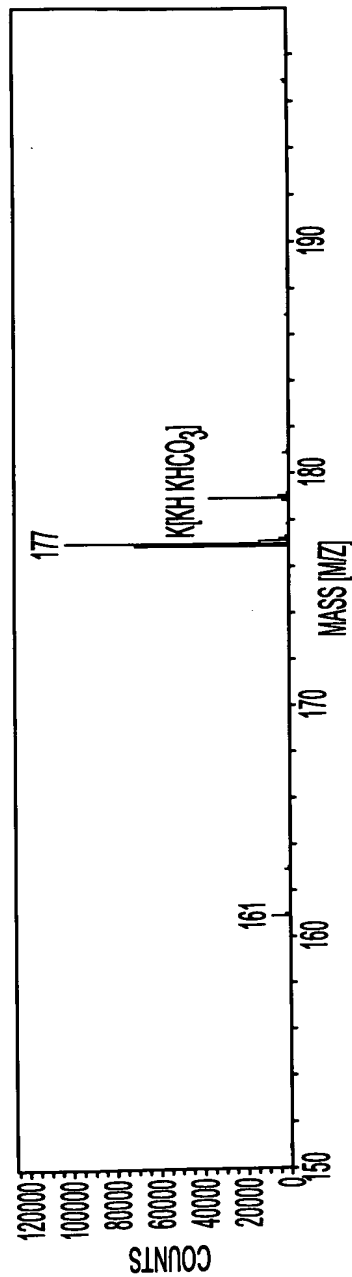


FIG. 7D



APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 8A

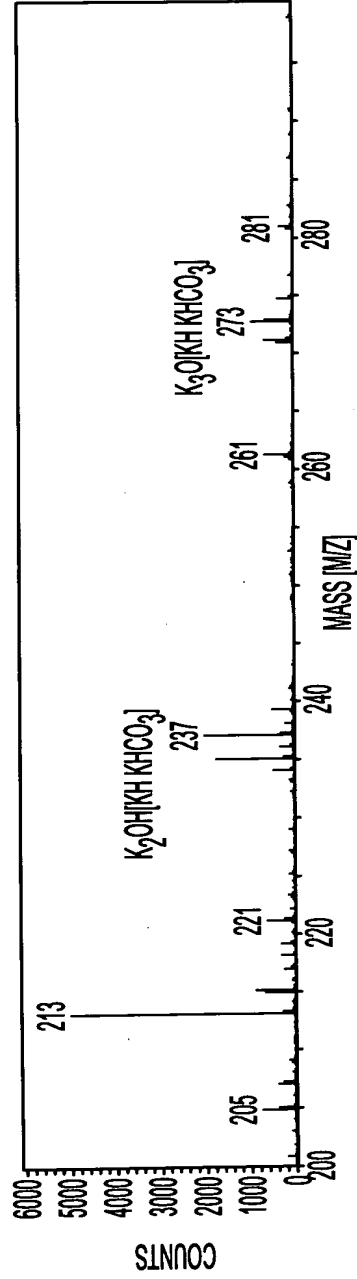
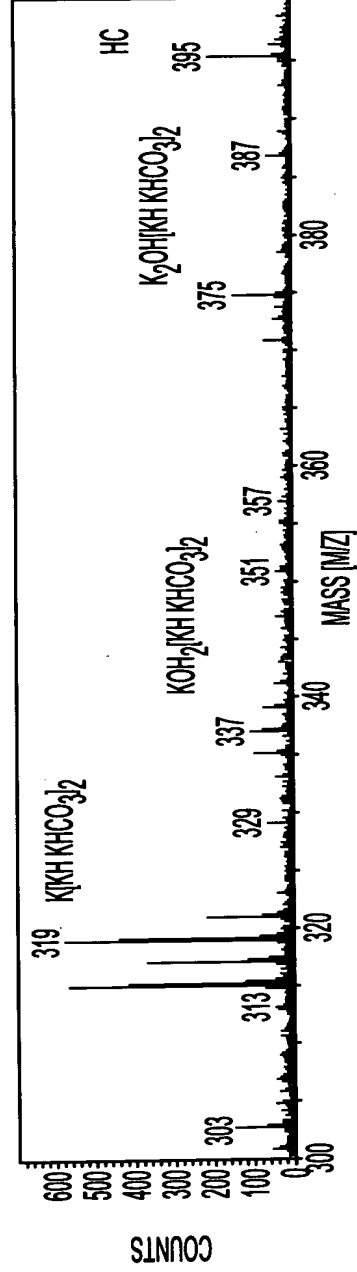


FIG. 8B



APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

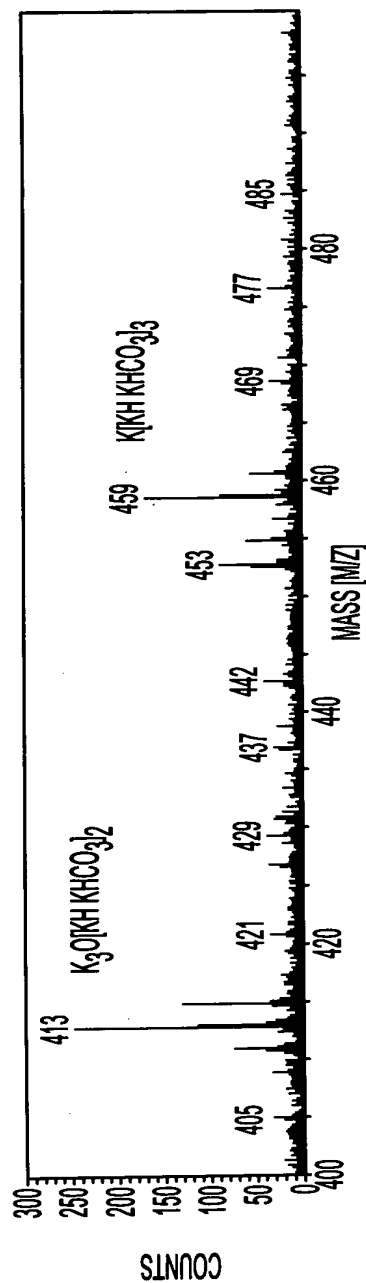
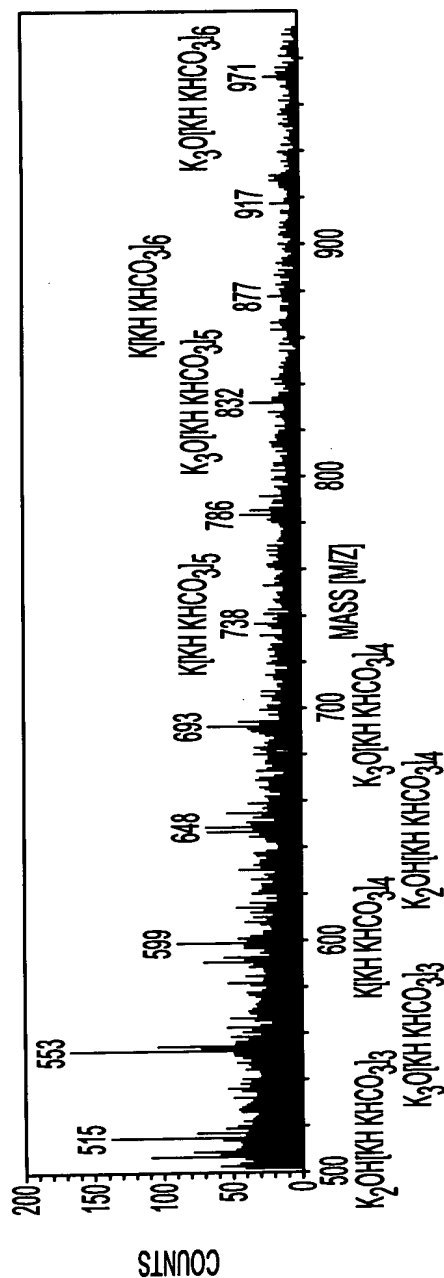
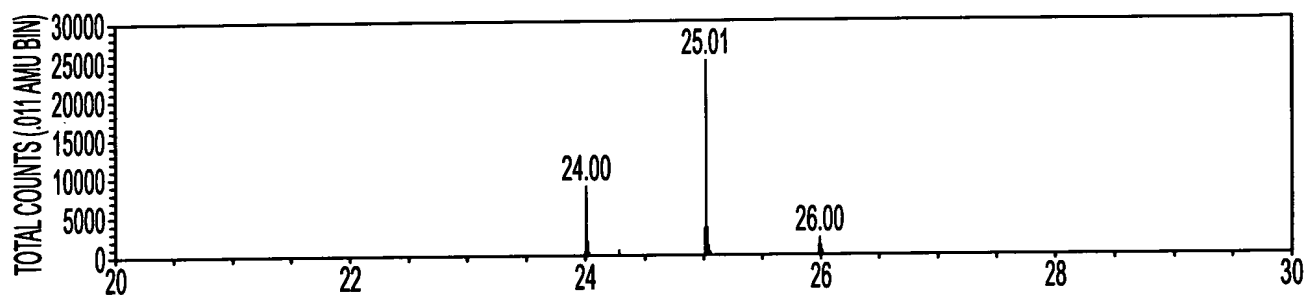


FIG. 8D



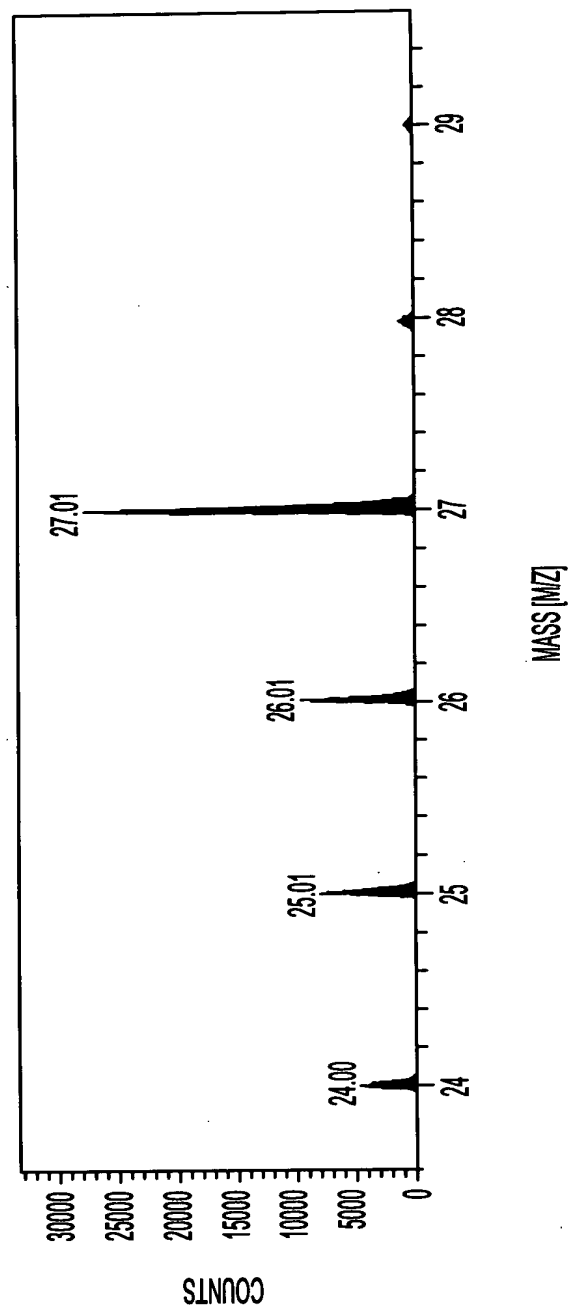
APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 9



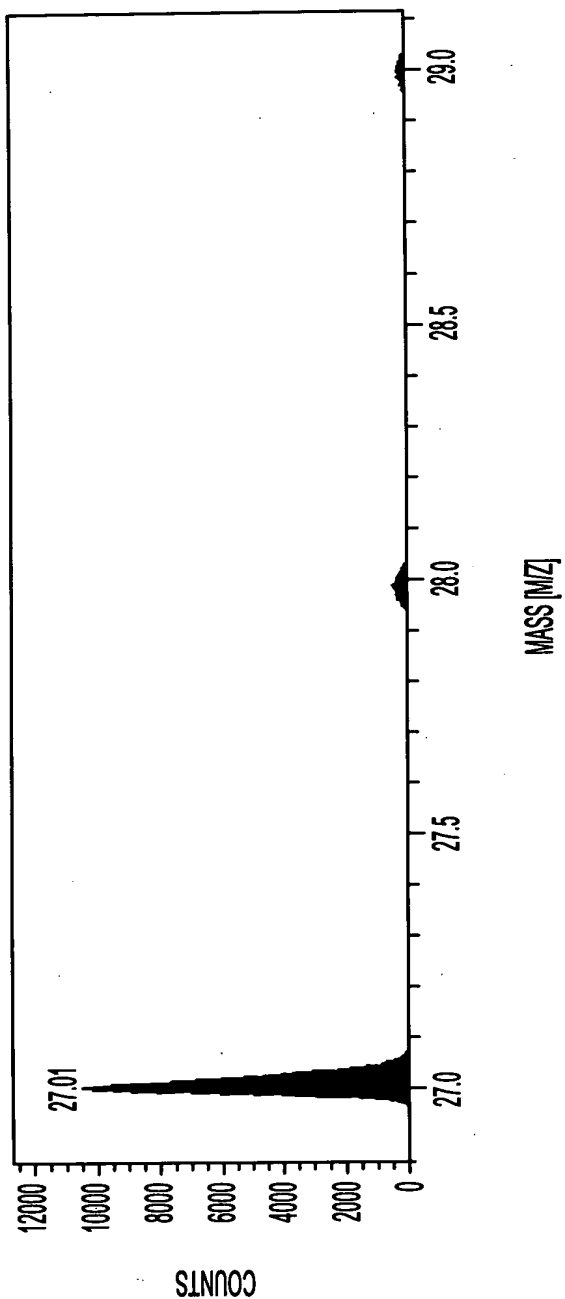
APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 10



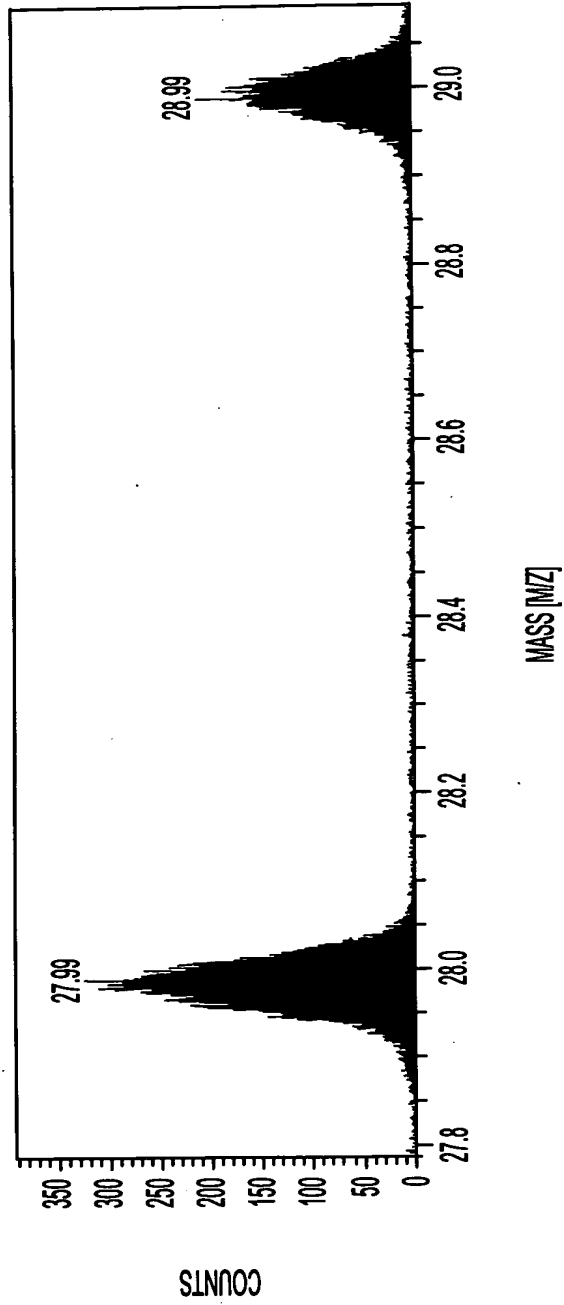
APPROVED	C. B. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 11



APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 12



APPROVED	C.S. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 13A

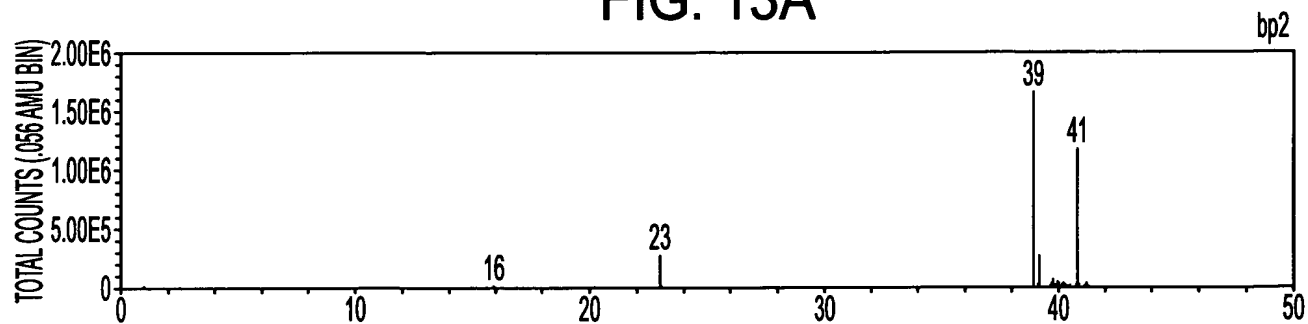


FIG. 13B

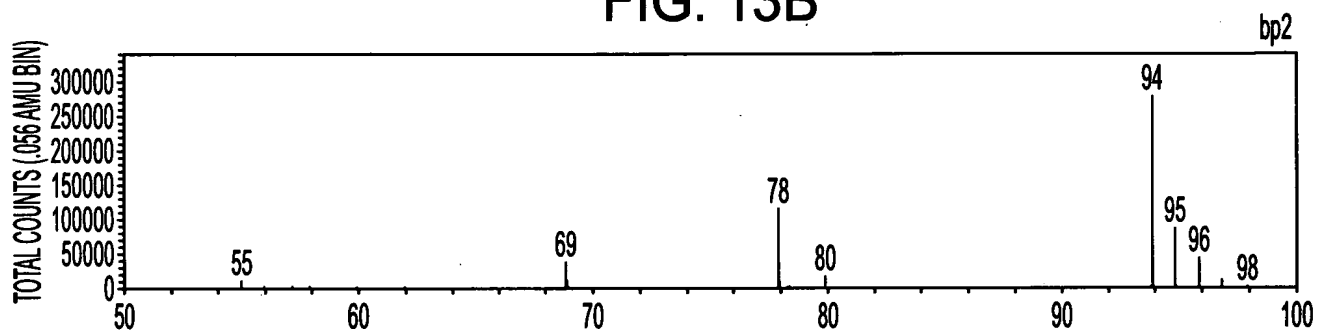


FIG. 13C

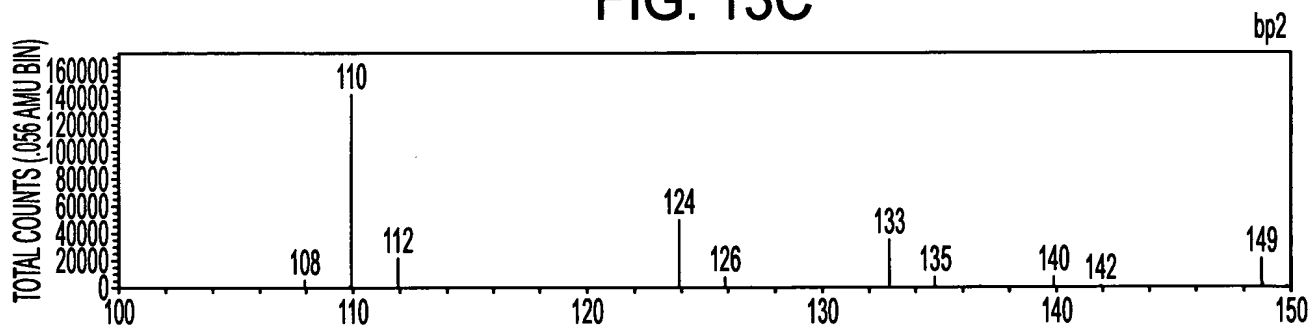
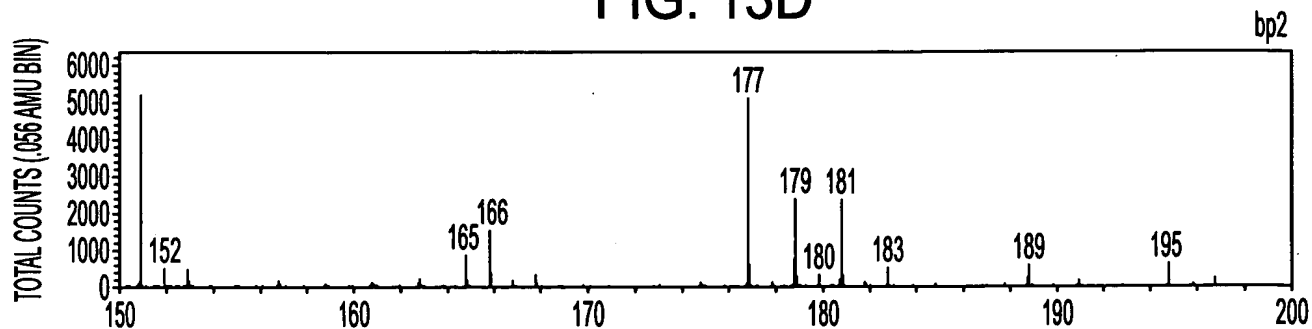
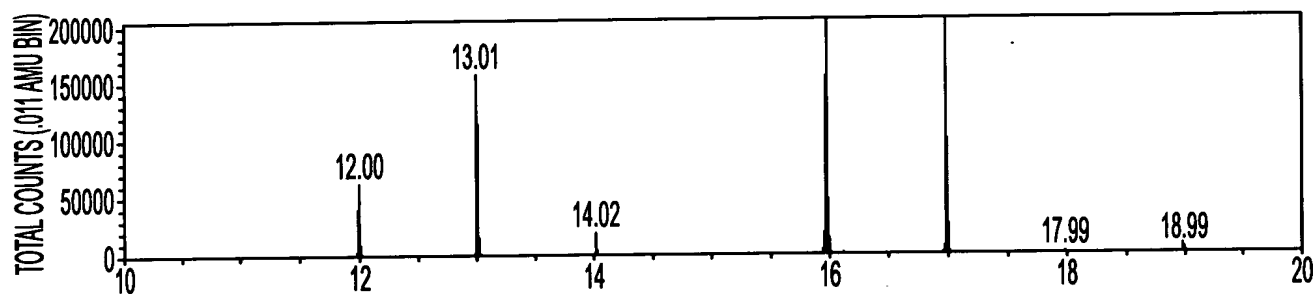


FIG. 13D



APPROVED	C.S. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 14



APPROVED	O.Q. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

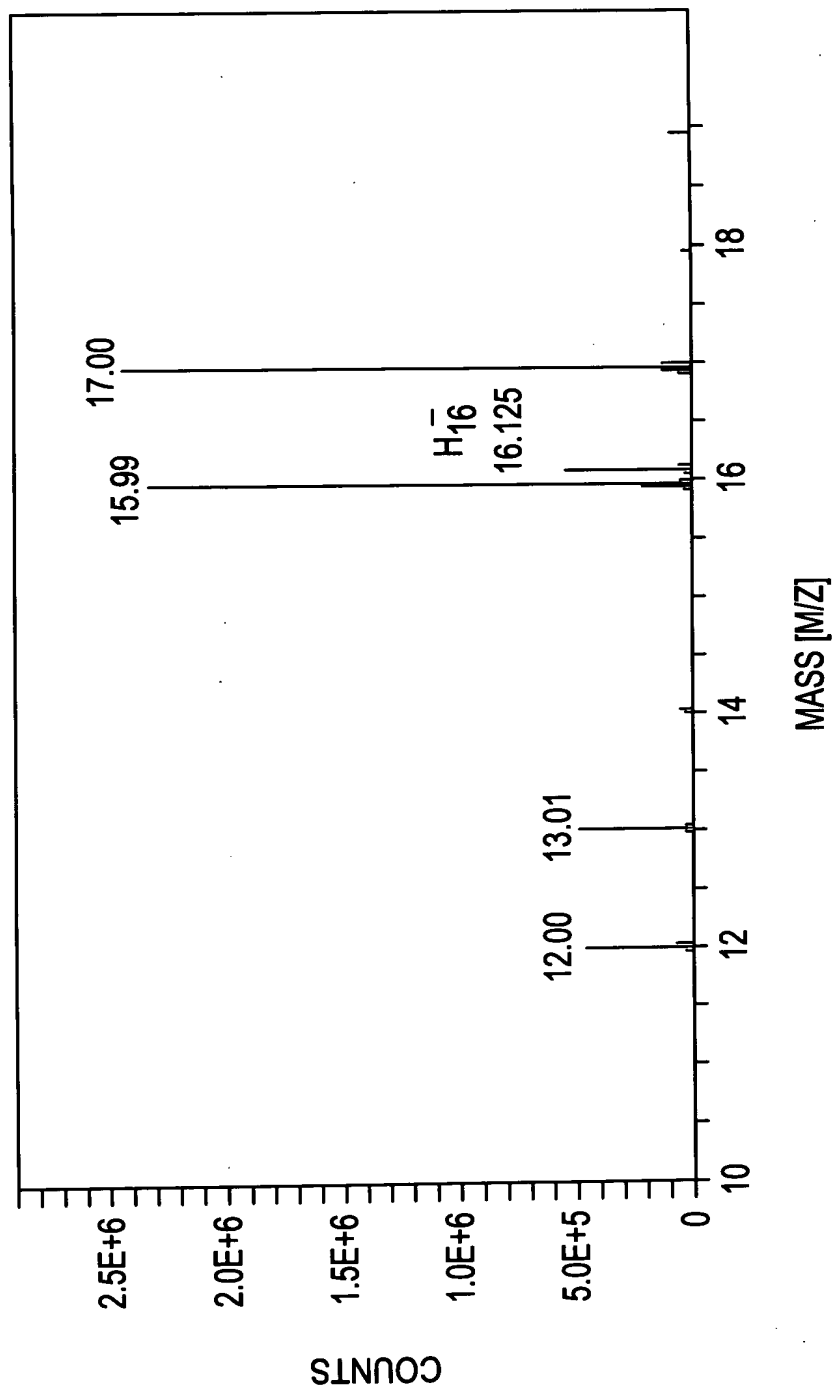
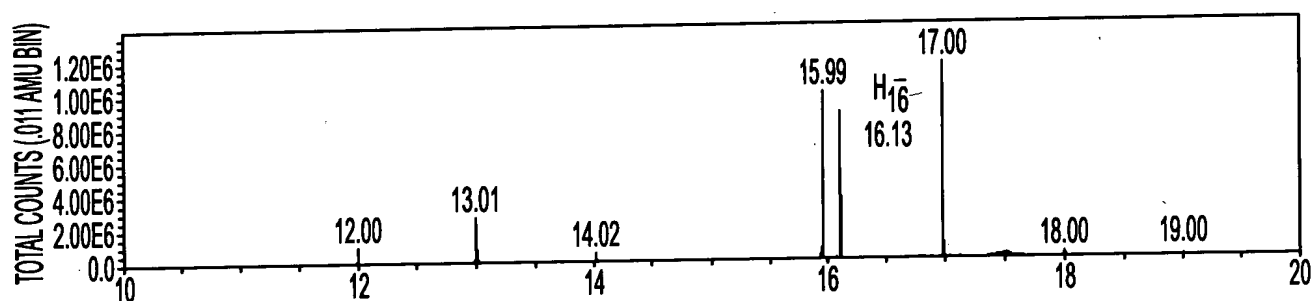


FIG. 15

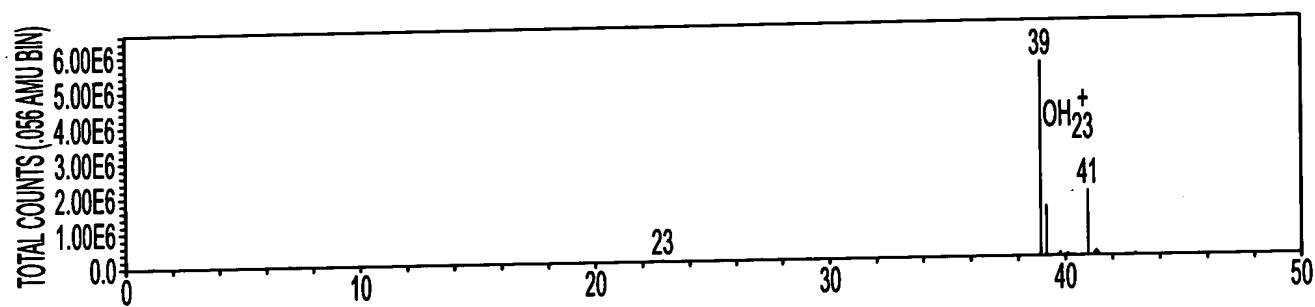
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 16



APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 17



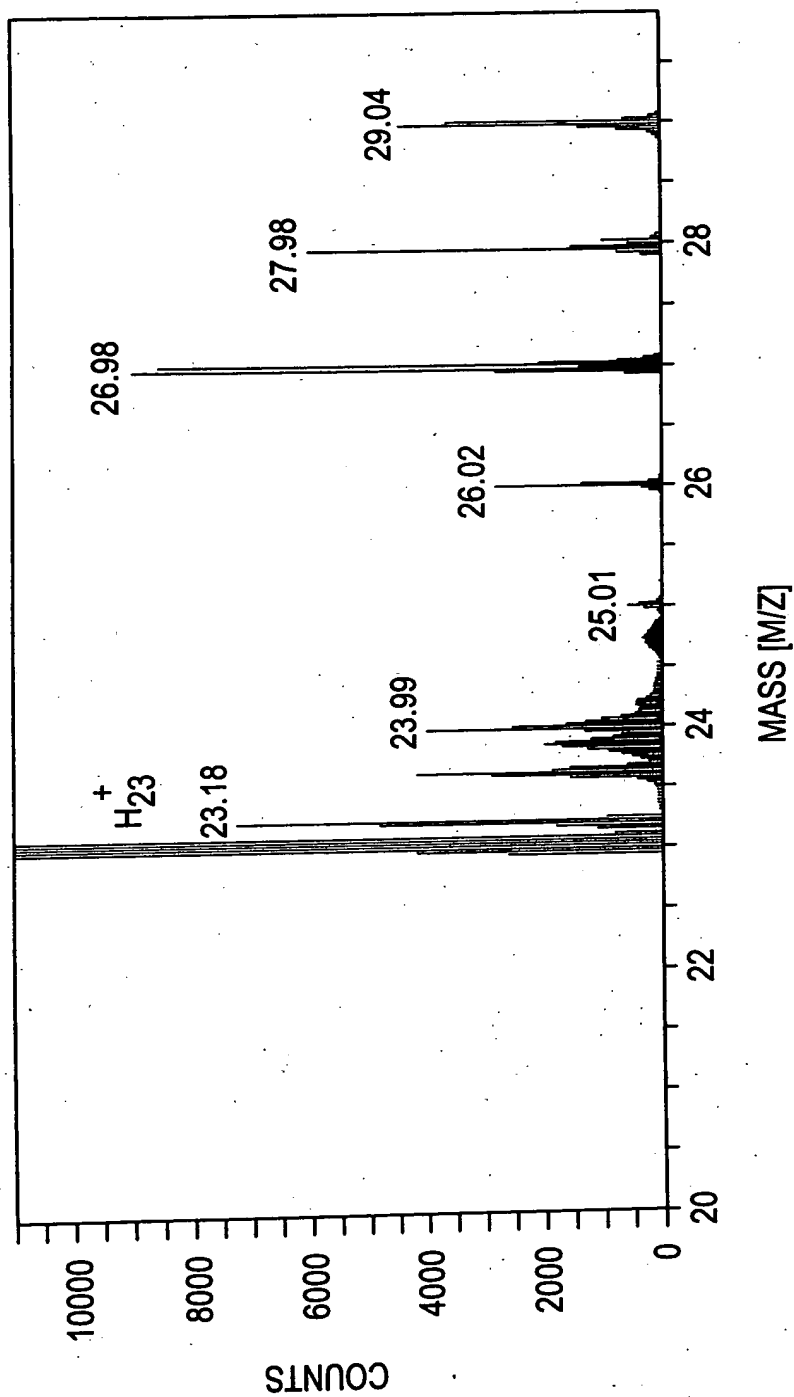


FIG. 18

APPROVED	FIG. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

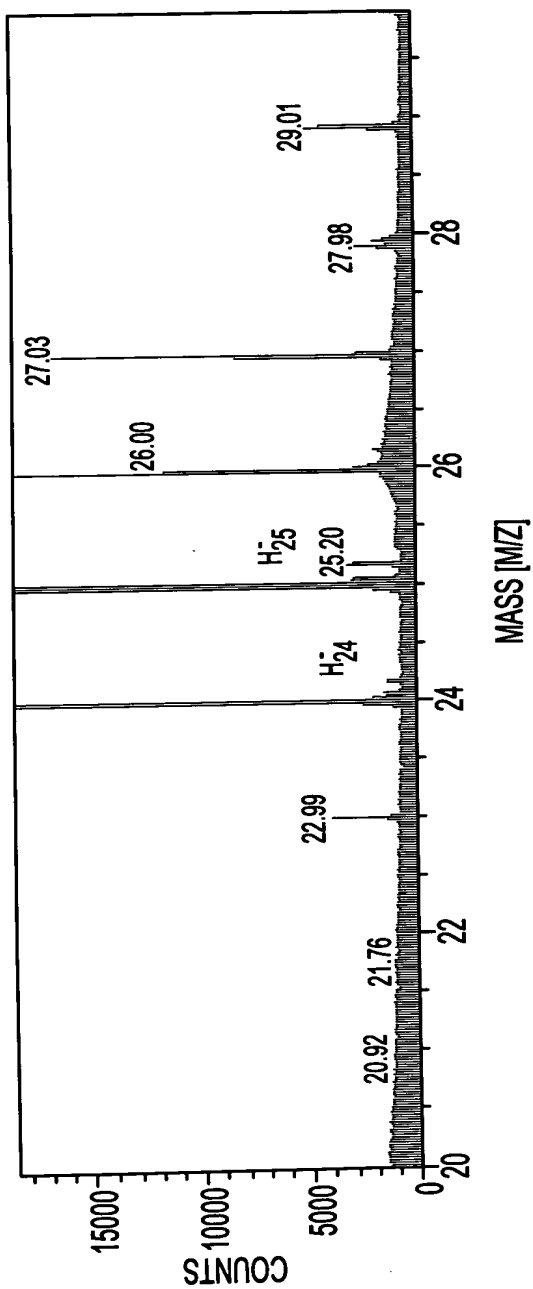


FIG. 19

APPROVED	C.O. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

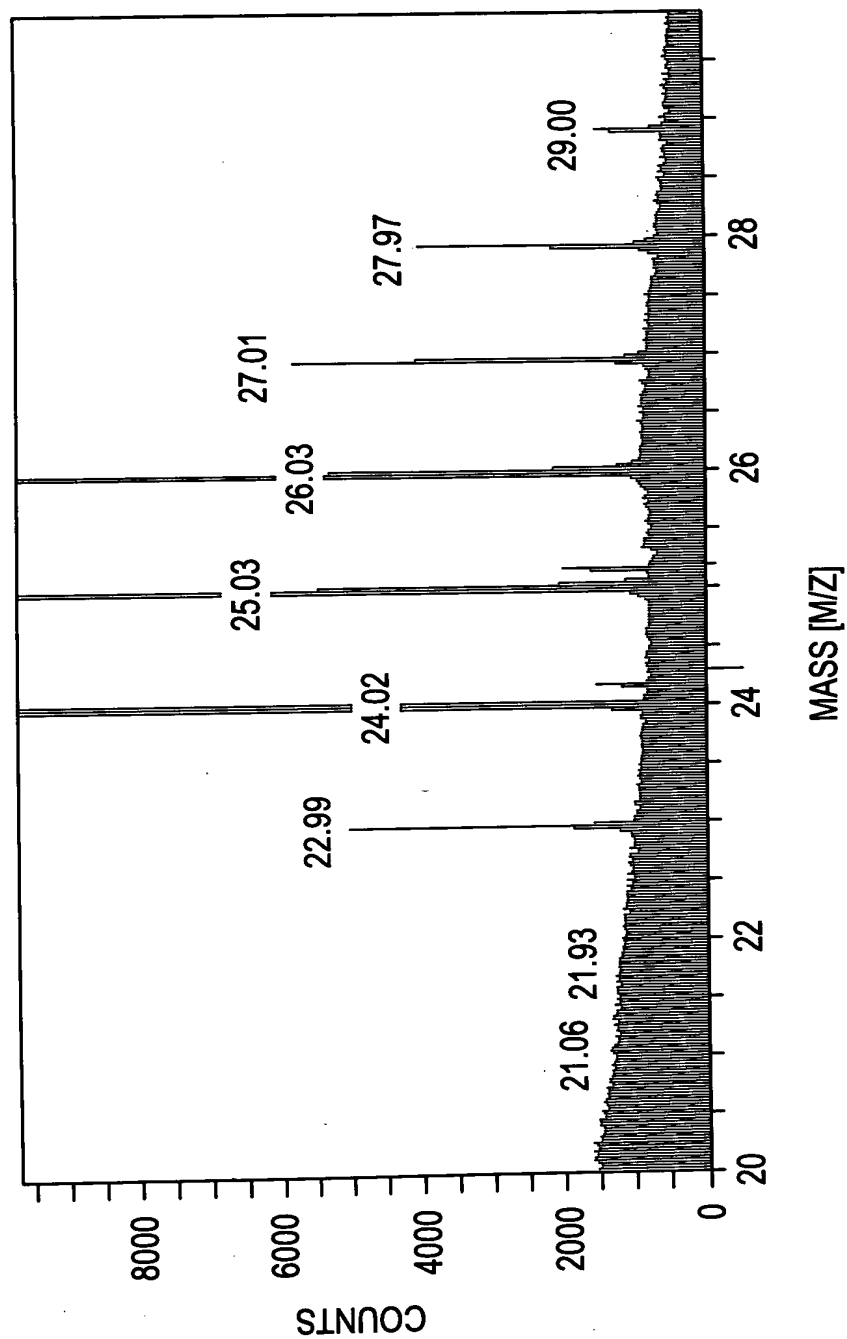


FIG. 20

APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

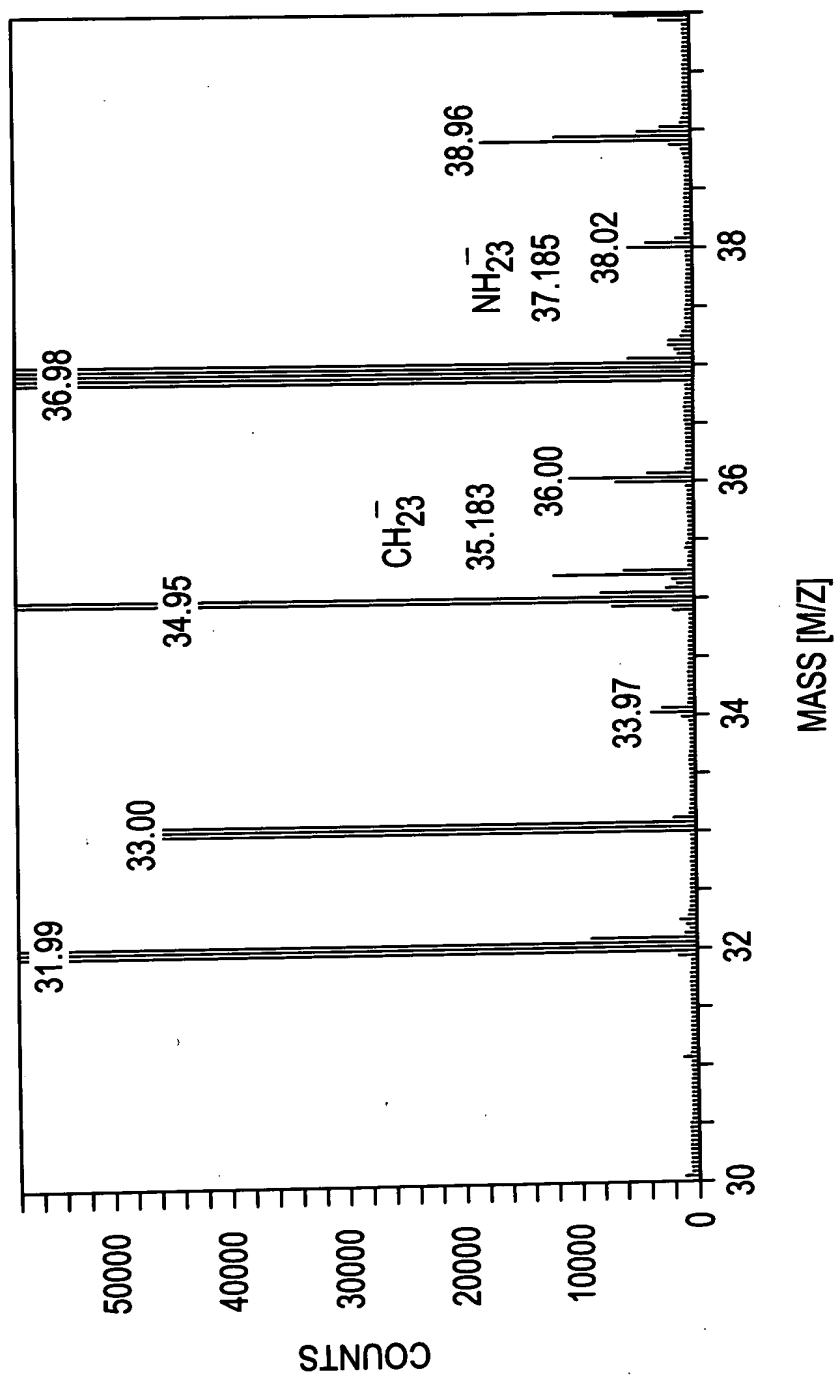


FIG. 21

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

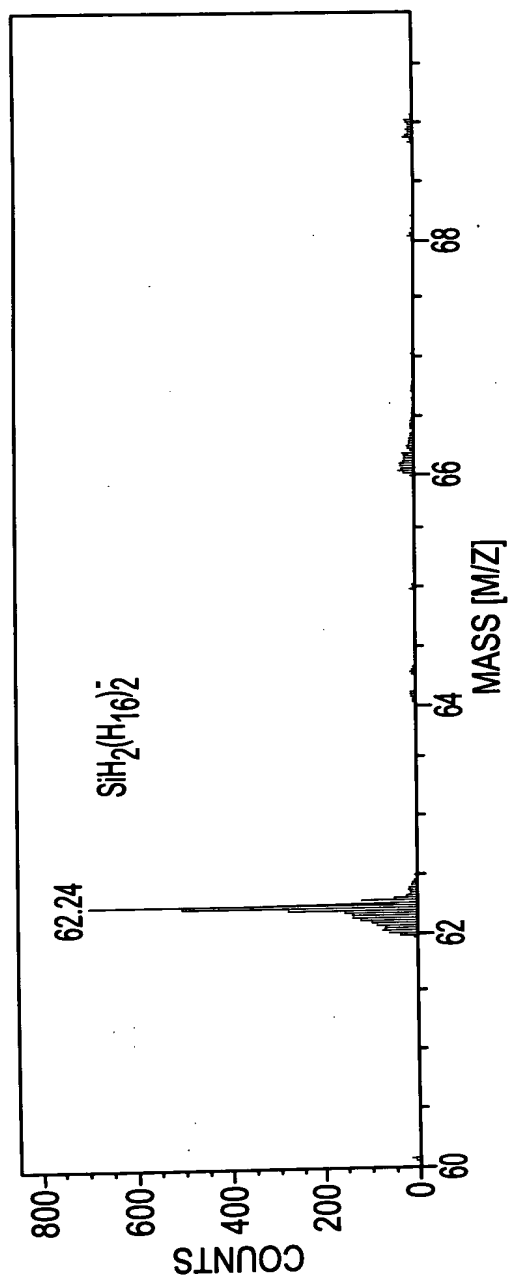


FIG. 22

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 23A

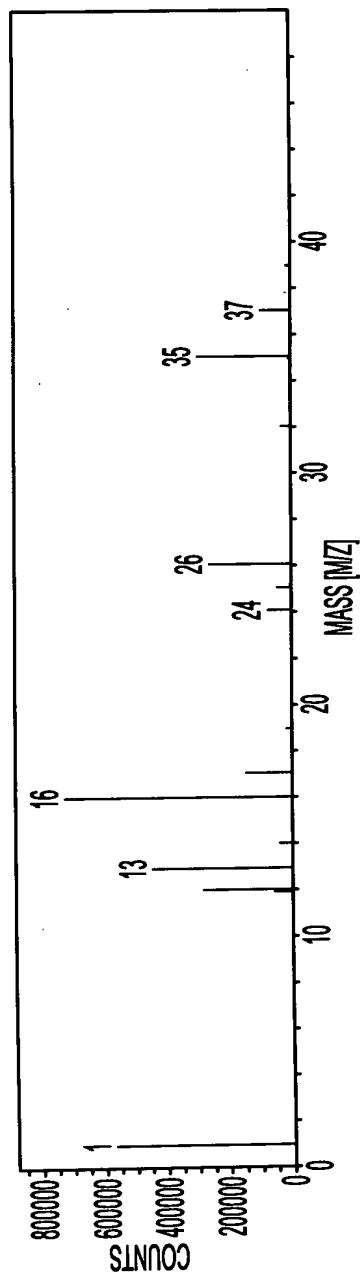
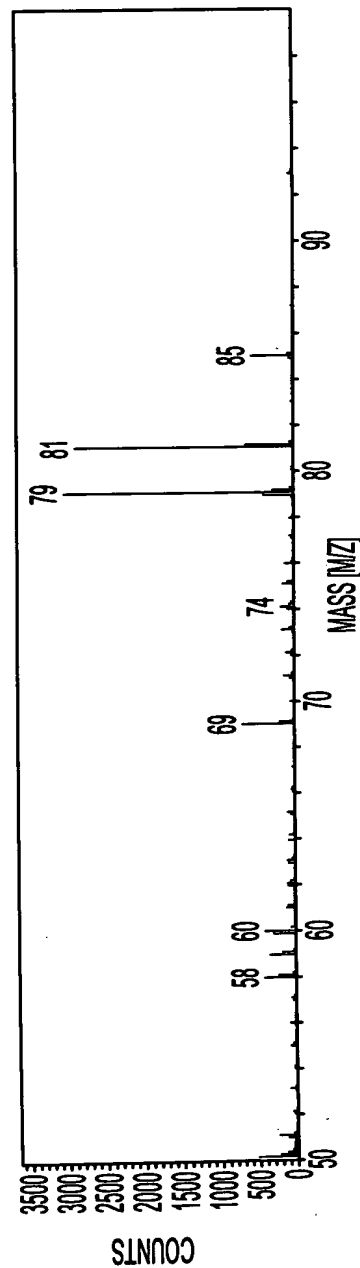


FIG. 23B



APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 23C

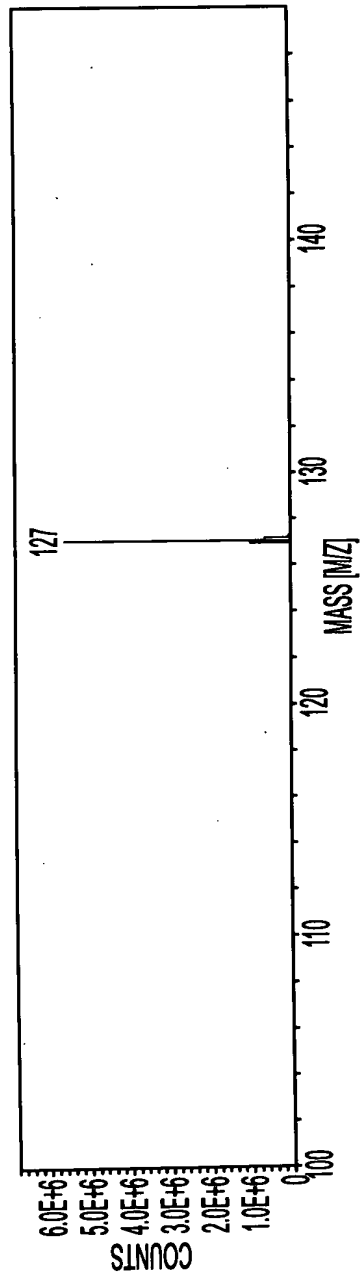


FIG. 23D

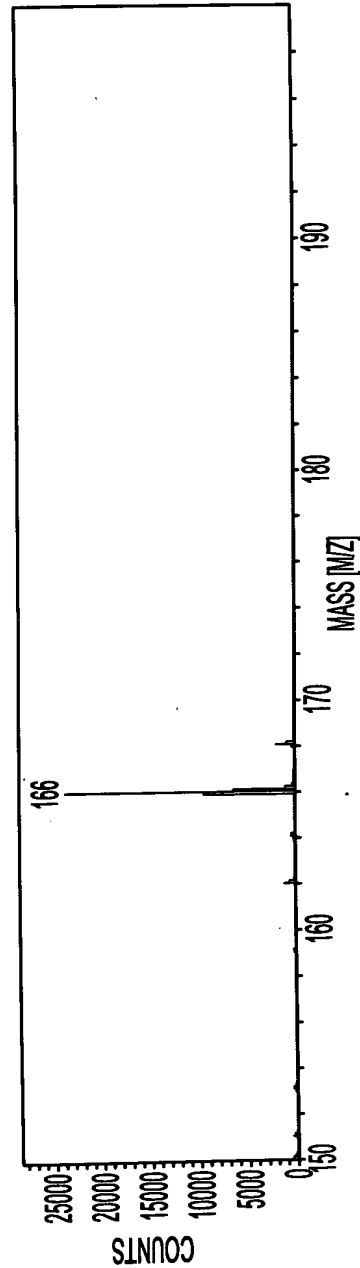


FIG. 24A

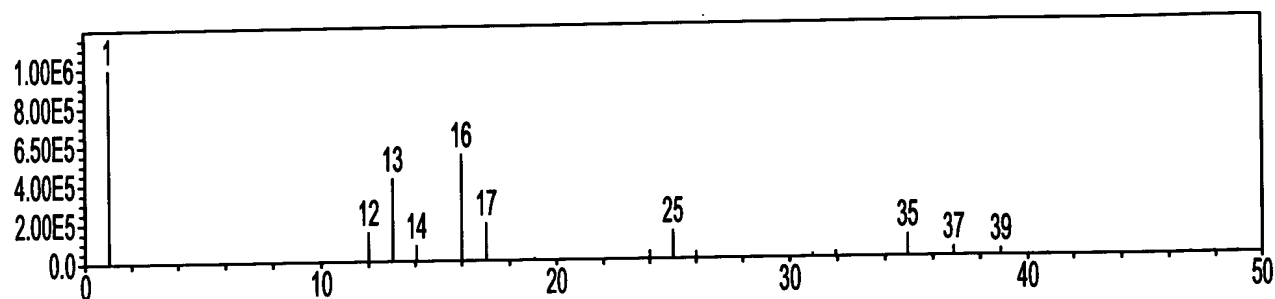


FIG. 24B

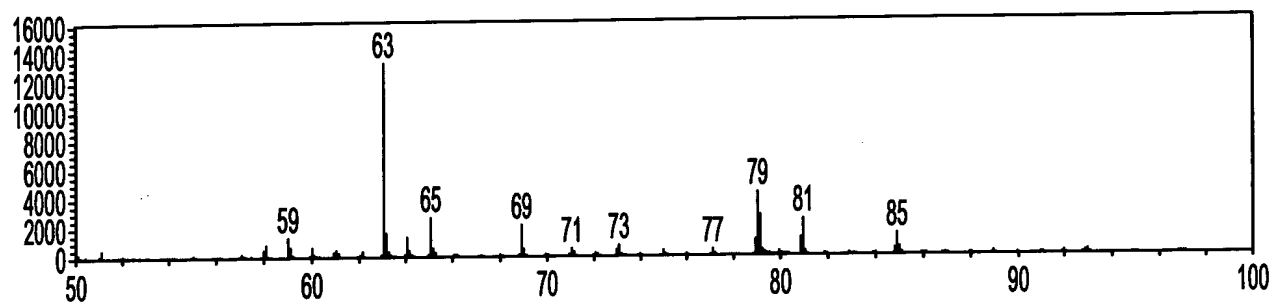


FIG. 24C

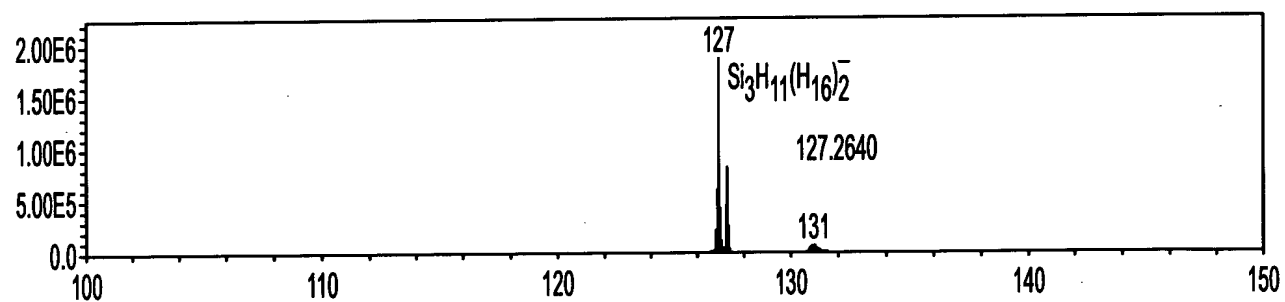
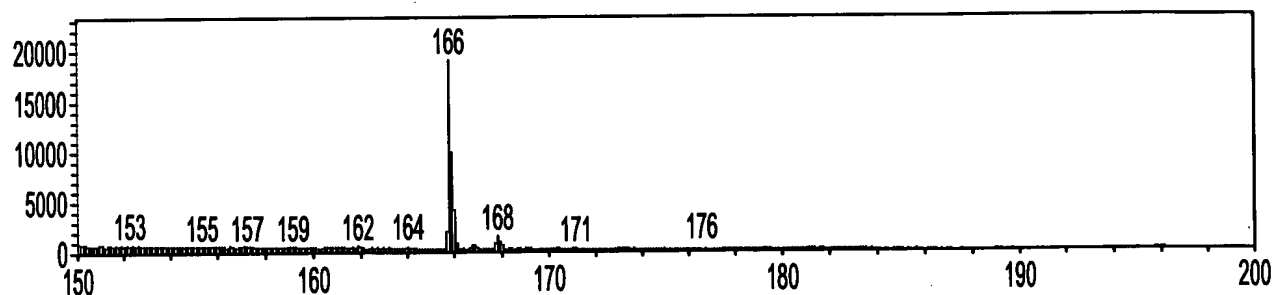
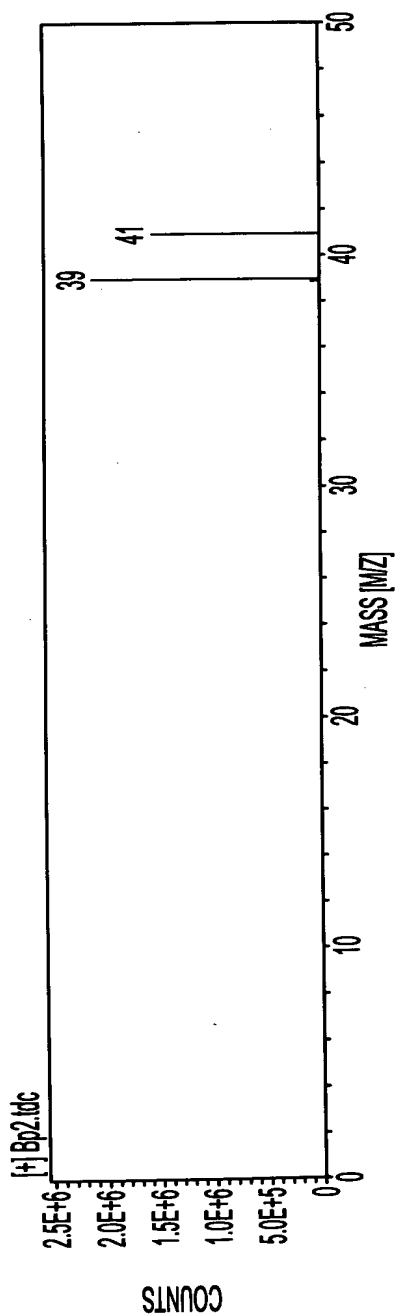


FIG. 24D



APPROVED	C.B. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 25



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 26A

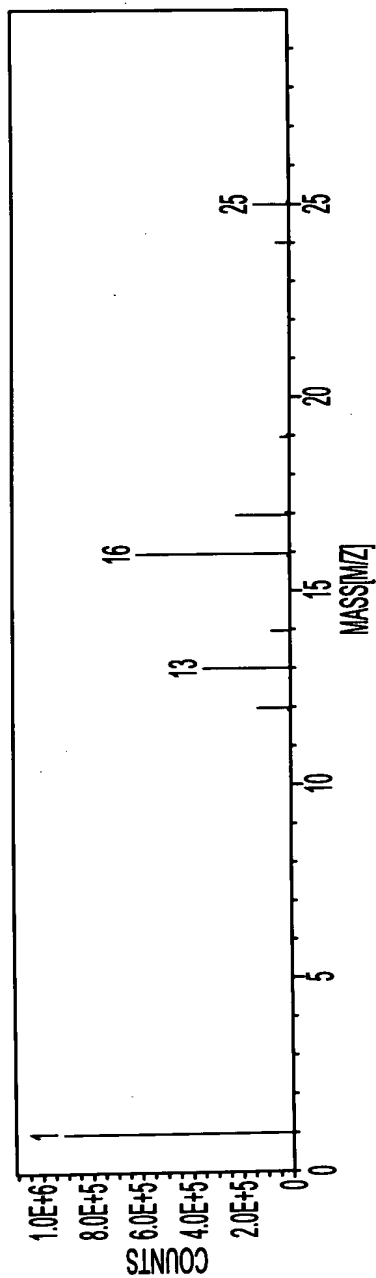
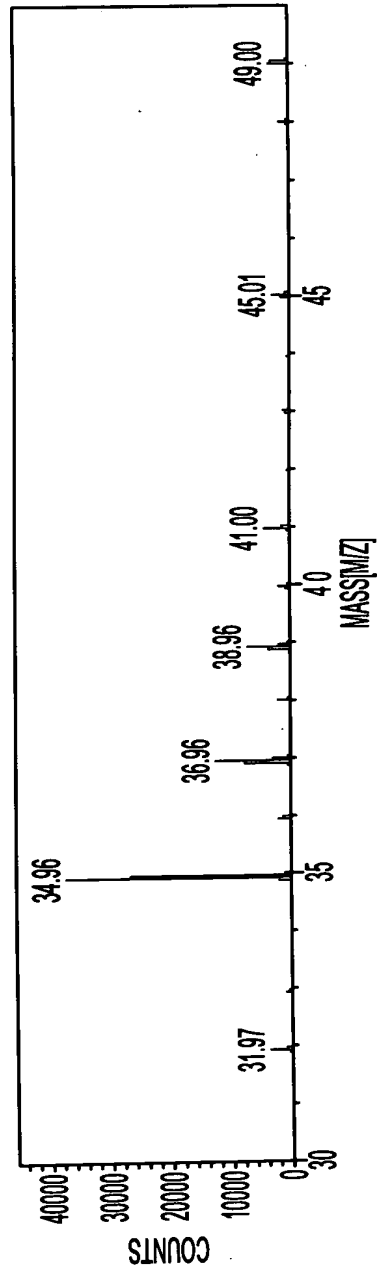


FIG. 26B



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 IN ANY MANNER.

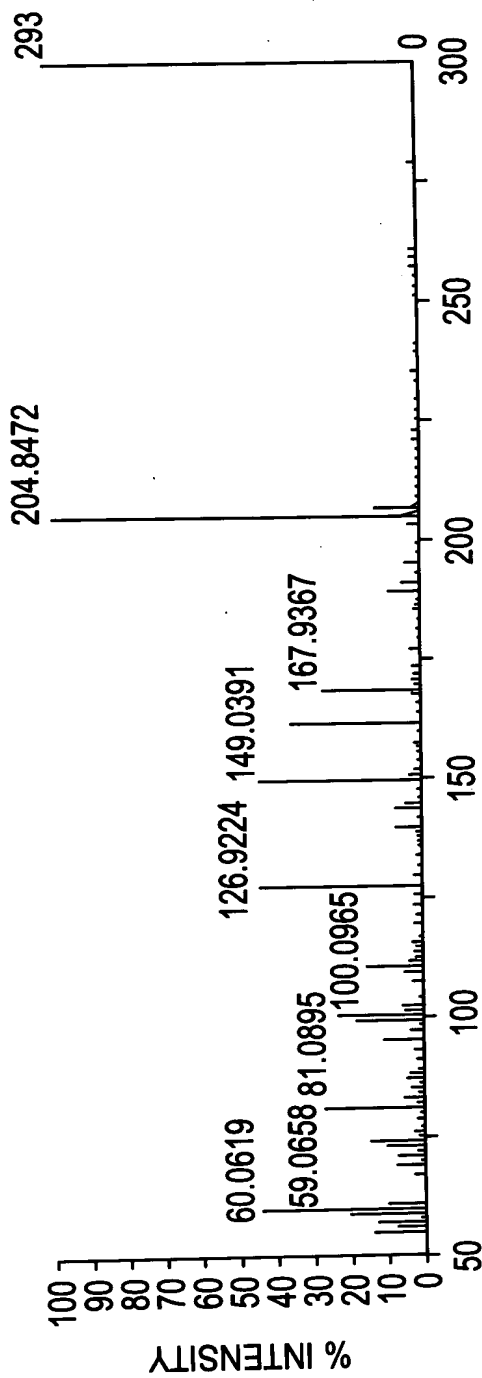


FIG. 27B

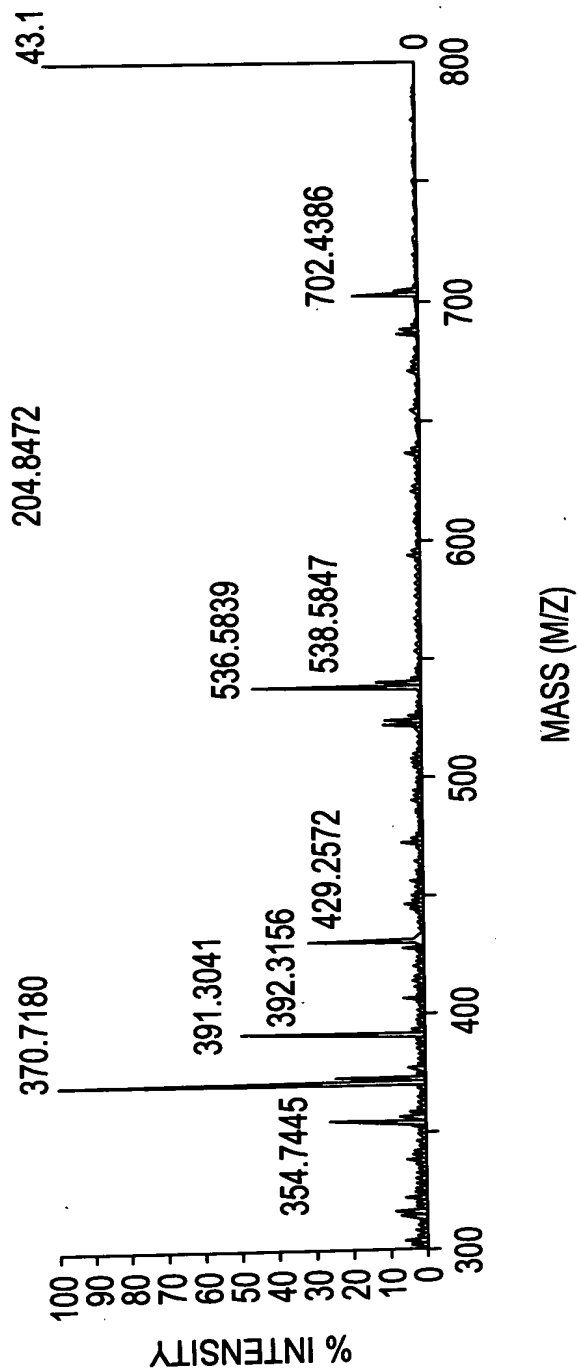
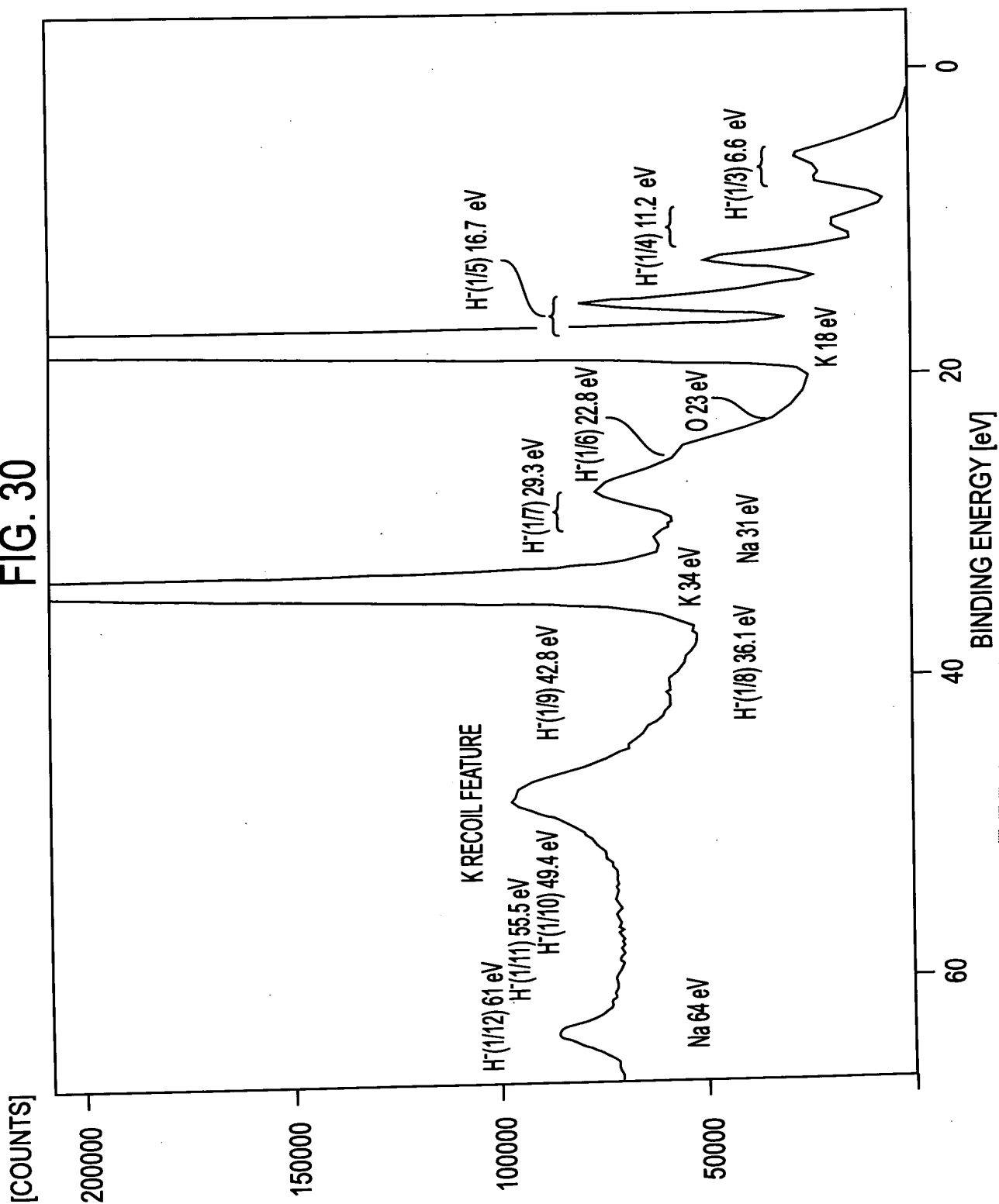


FIG. 27C

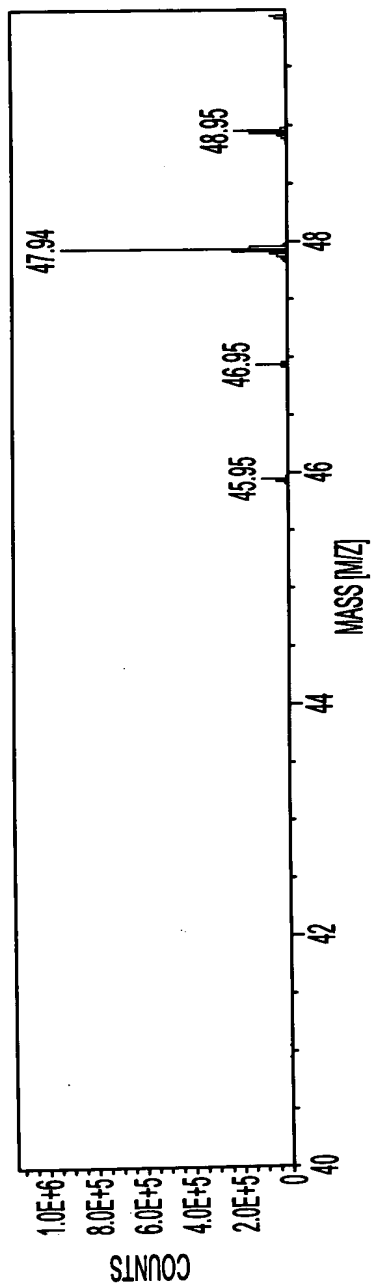


FIG. 30



APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 33



APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

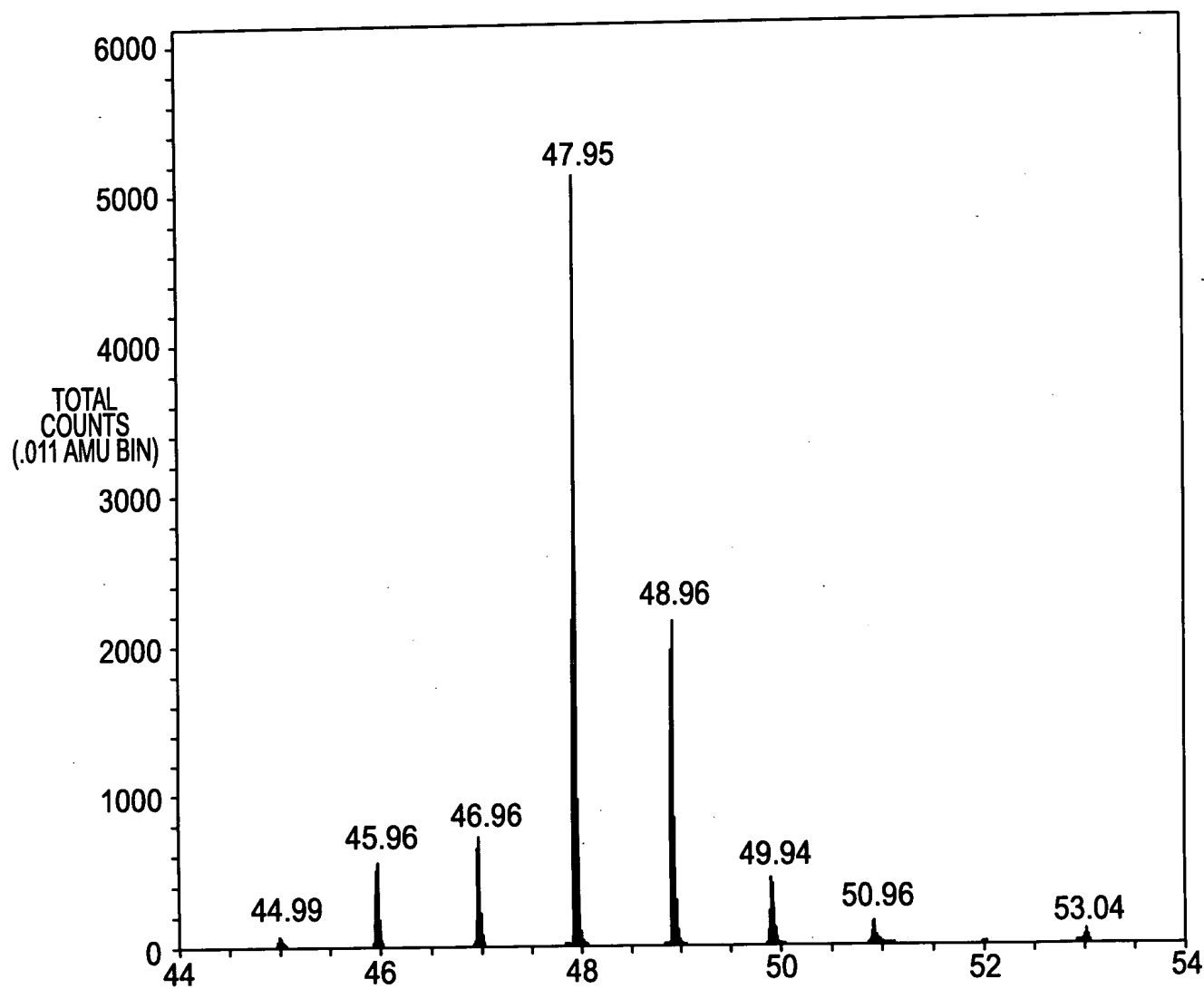
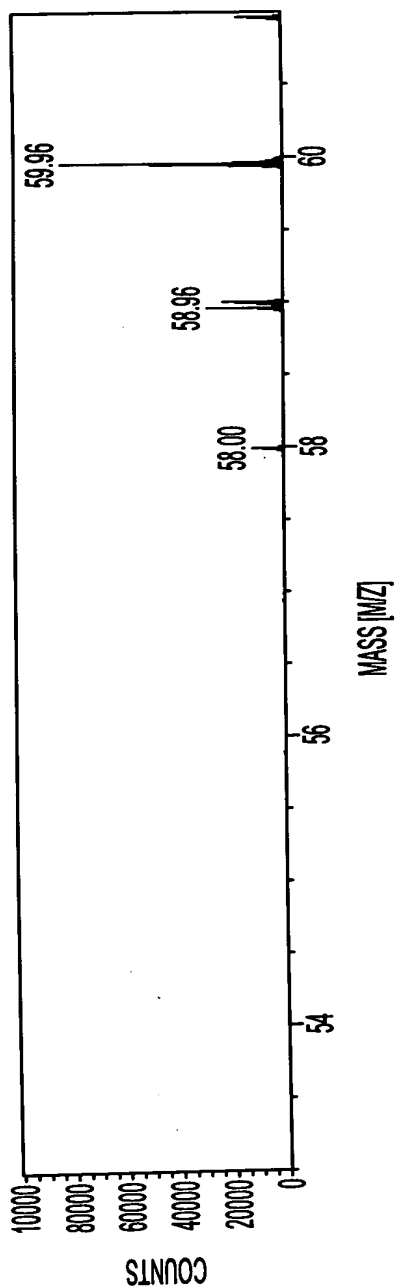


FIG.35

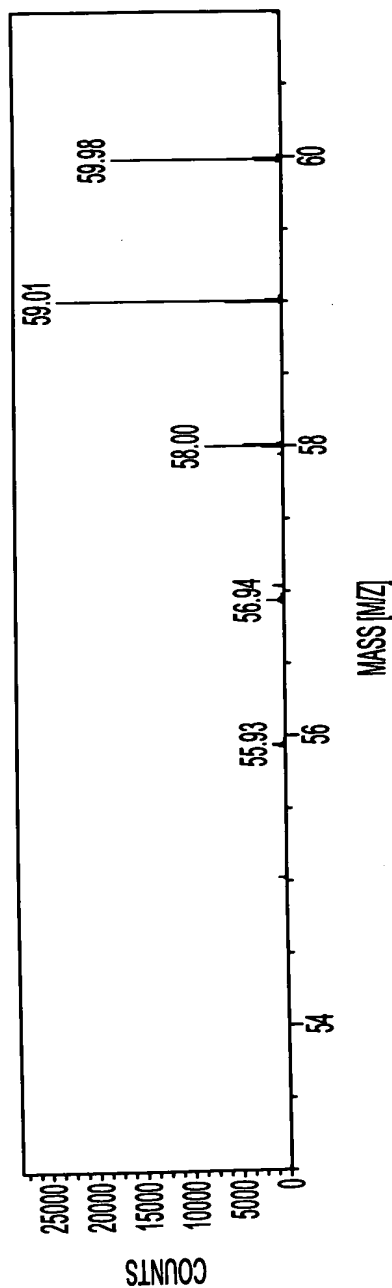
APPROVED	C. D. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 37



APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 38



APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

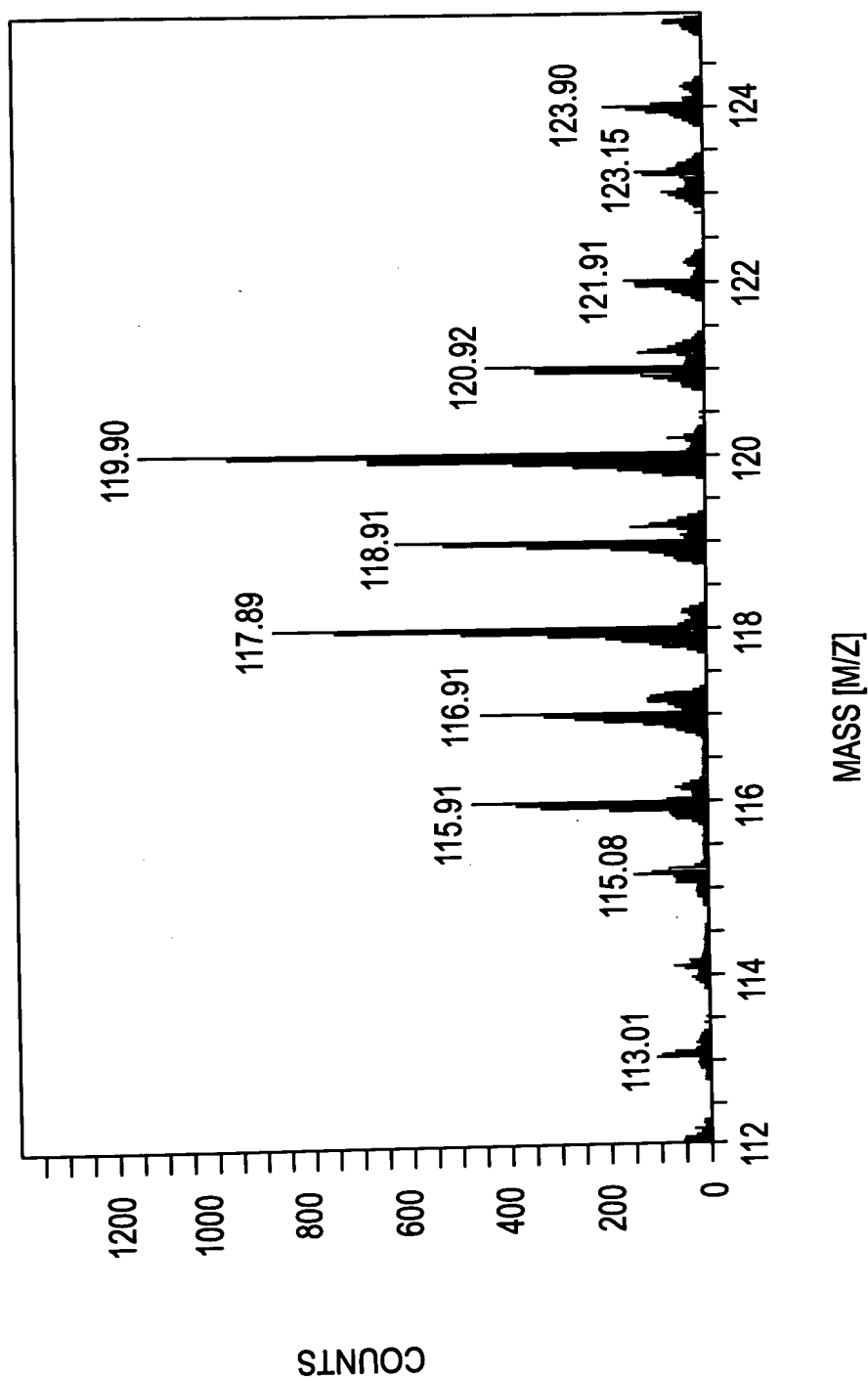
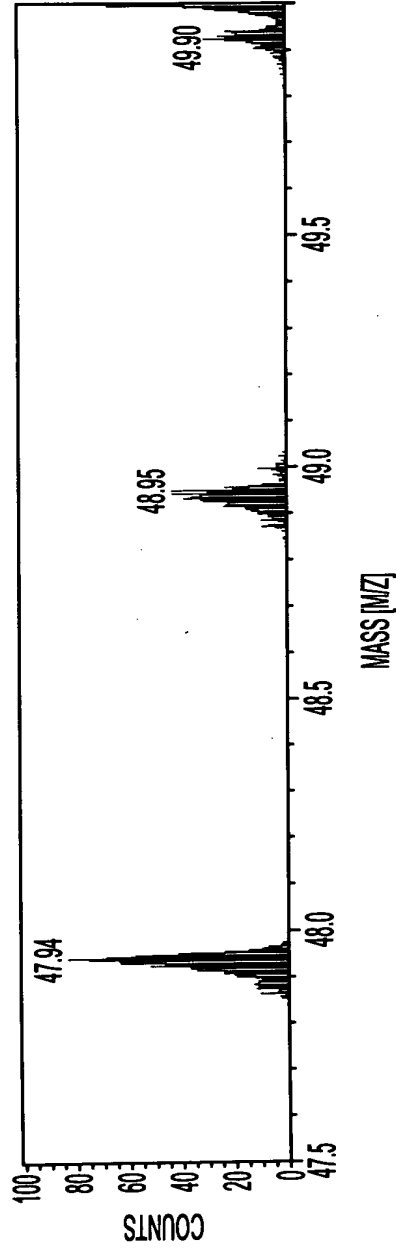


FIG. 39

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

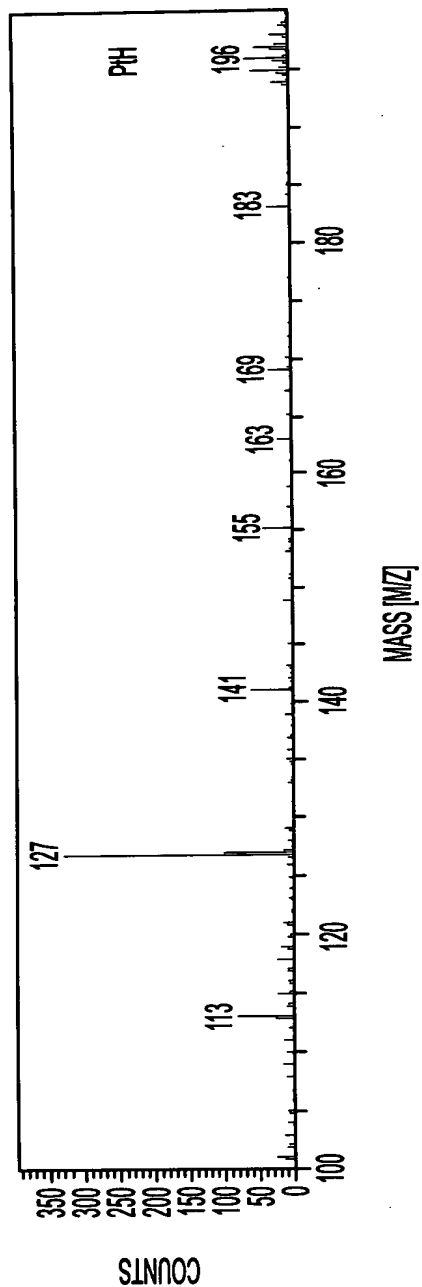
FIG. 41



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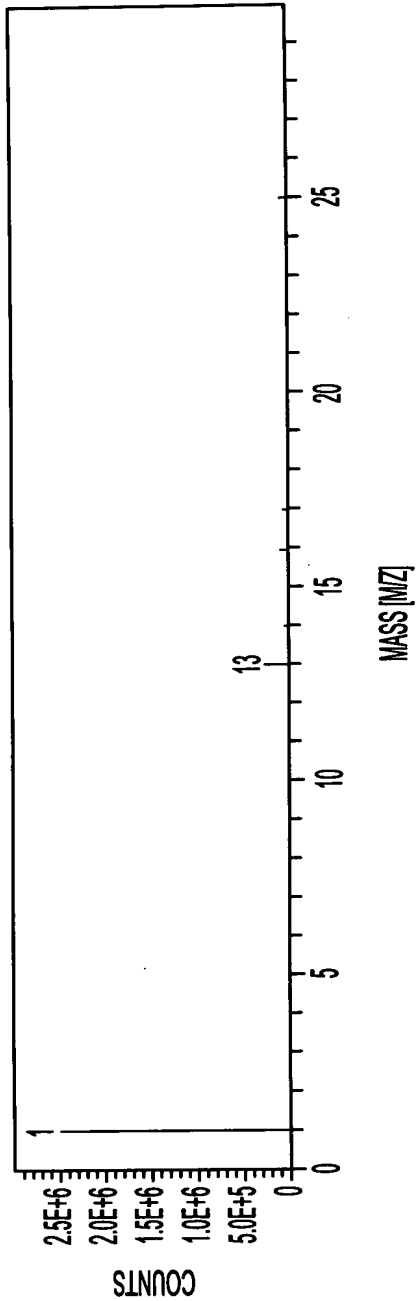
APPROVED	C.D. FIG.	
BY	CLASS	SUBCLASS
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FIG. 42



APPROVED	FIG.	
BY	CLASS	SUBCLASS
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FIG. 44



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APPROVED	FIG.	
BY	CLASS	SUBCLASS
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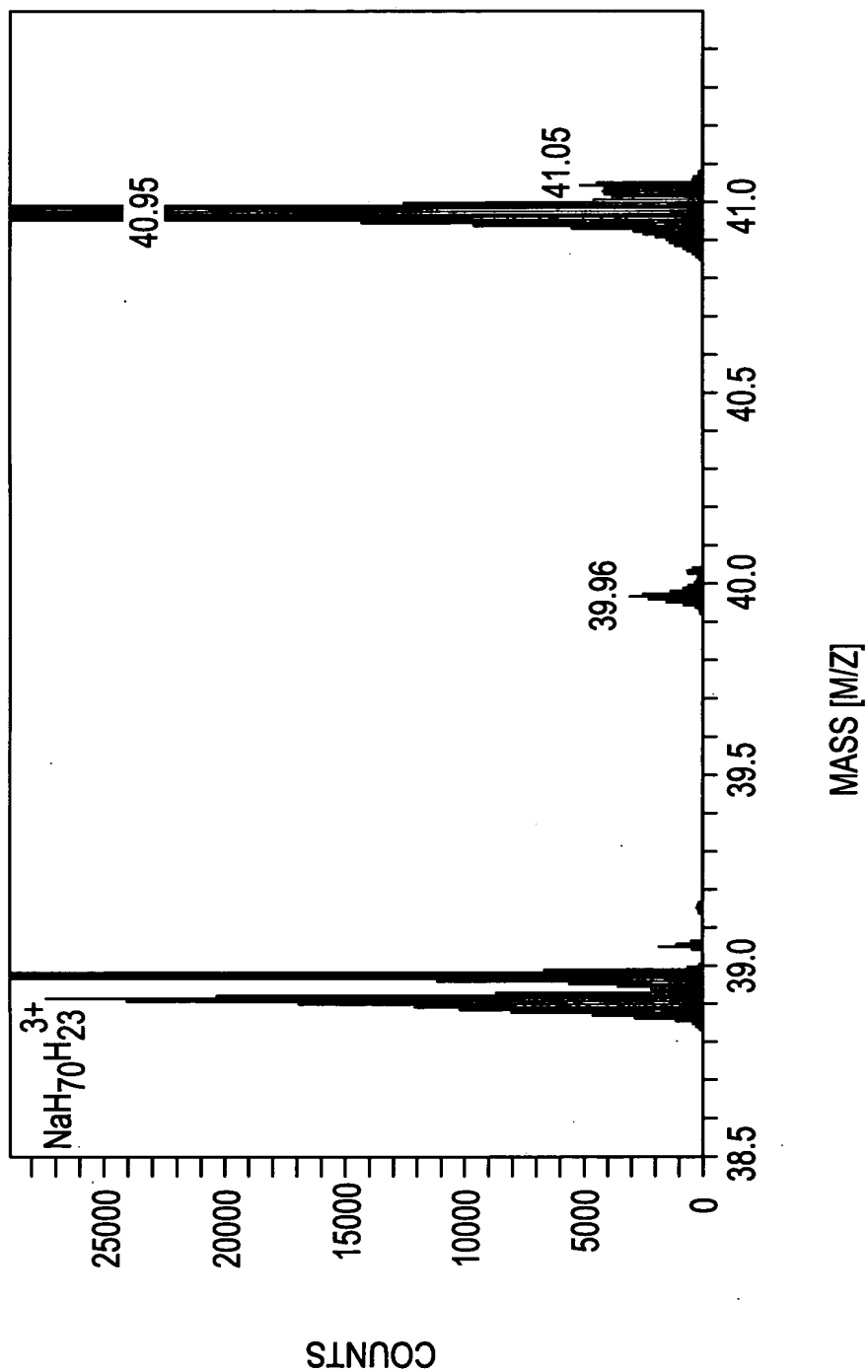


FIG. 46

APPROVED	C. Q. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

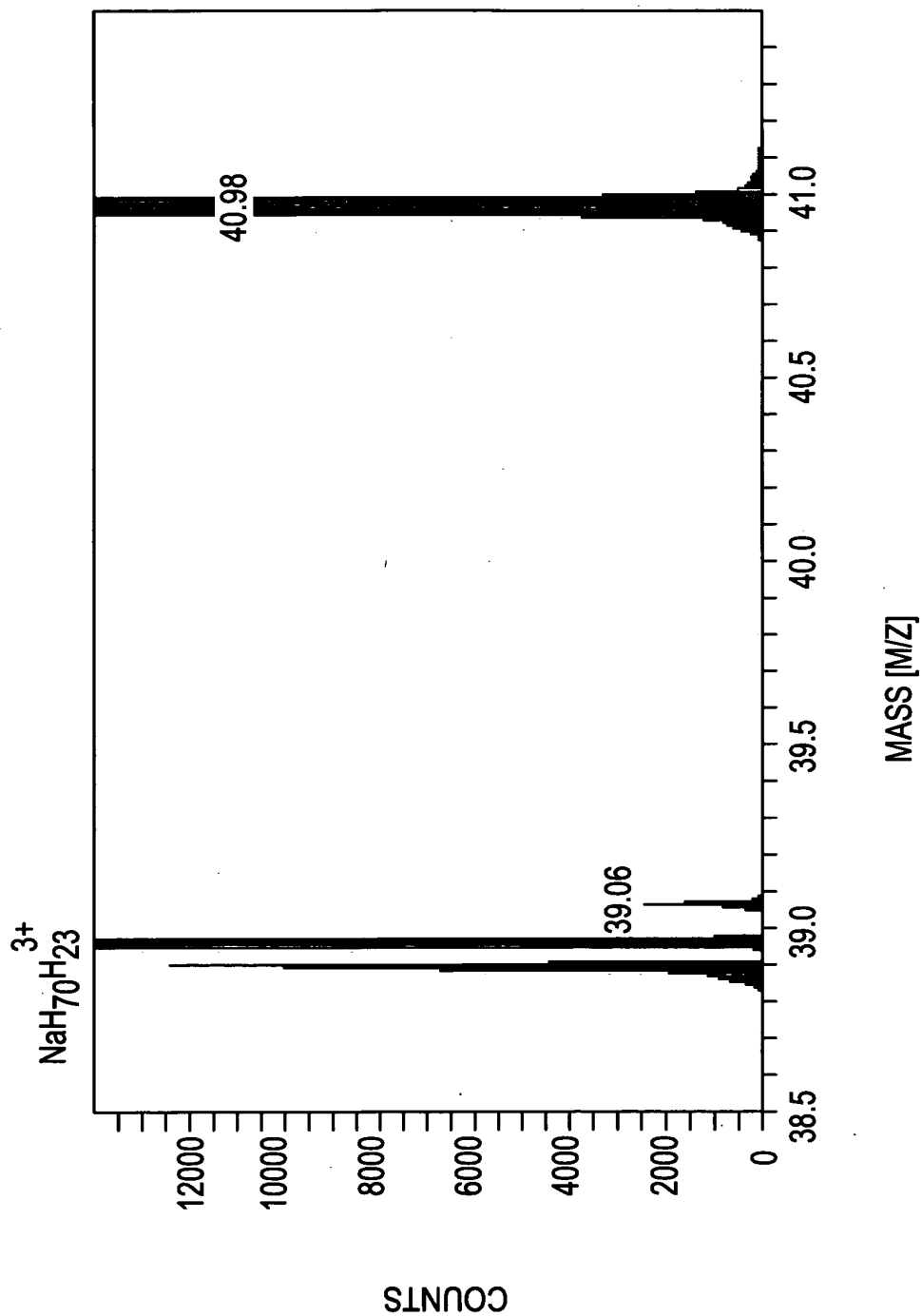


FIG. 47

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

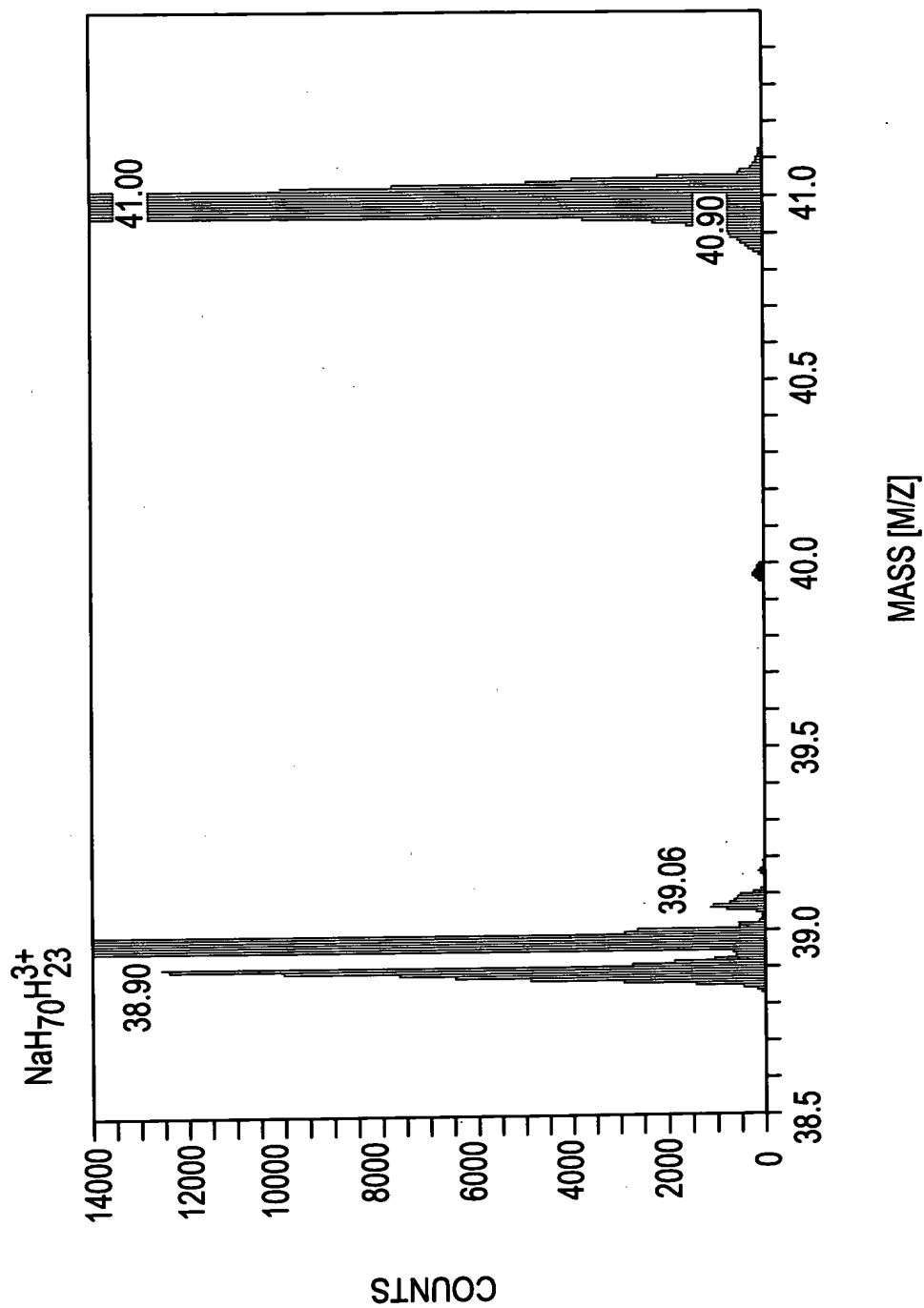


FIG. 48

APPROVED	C. Q. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

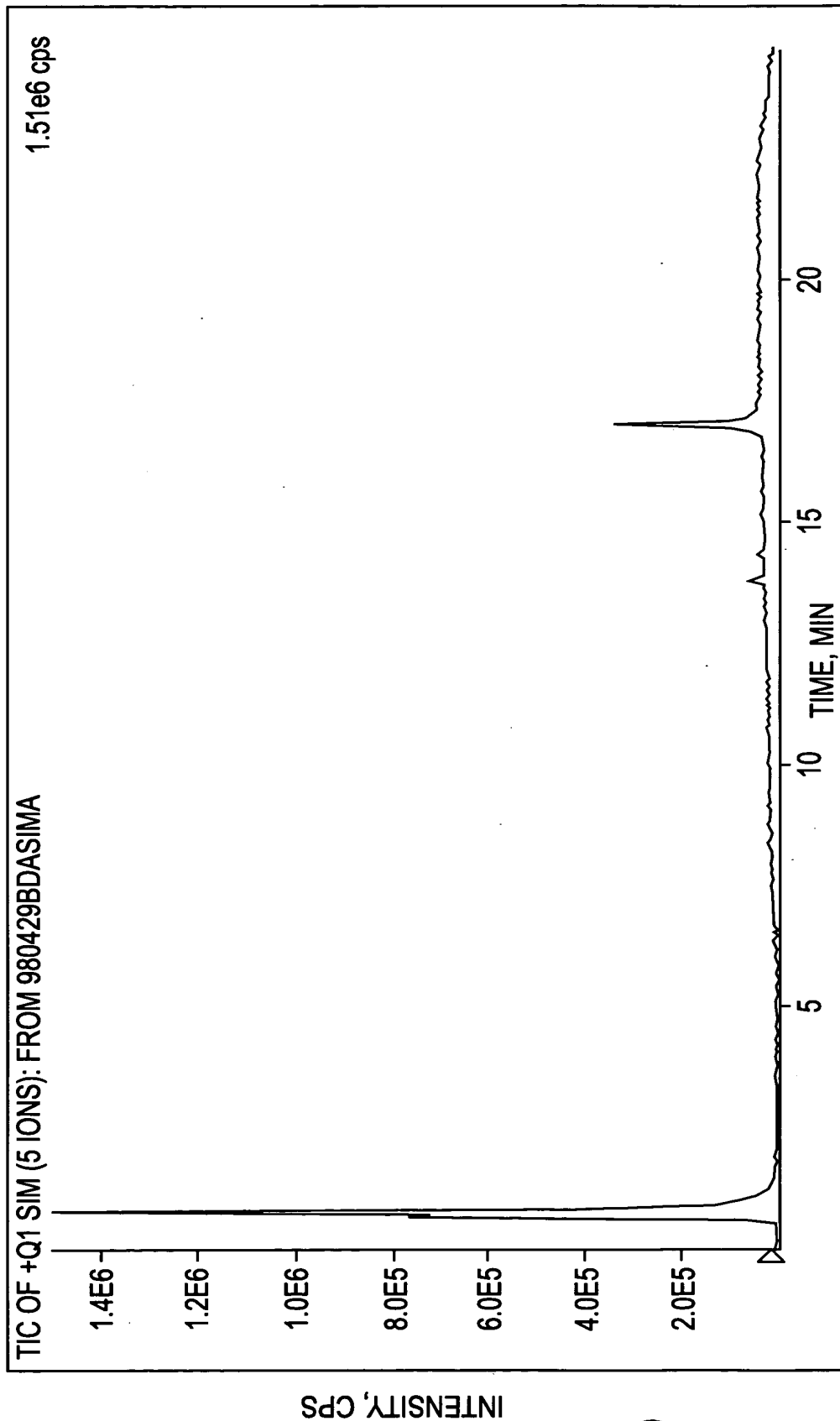


FIG. 49

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OF THE NATIONAL BUREAU OF STANDARDS.

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

TIC OF +Q1 SIM (5 IONS): FROM 980429BDASIMA

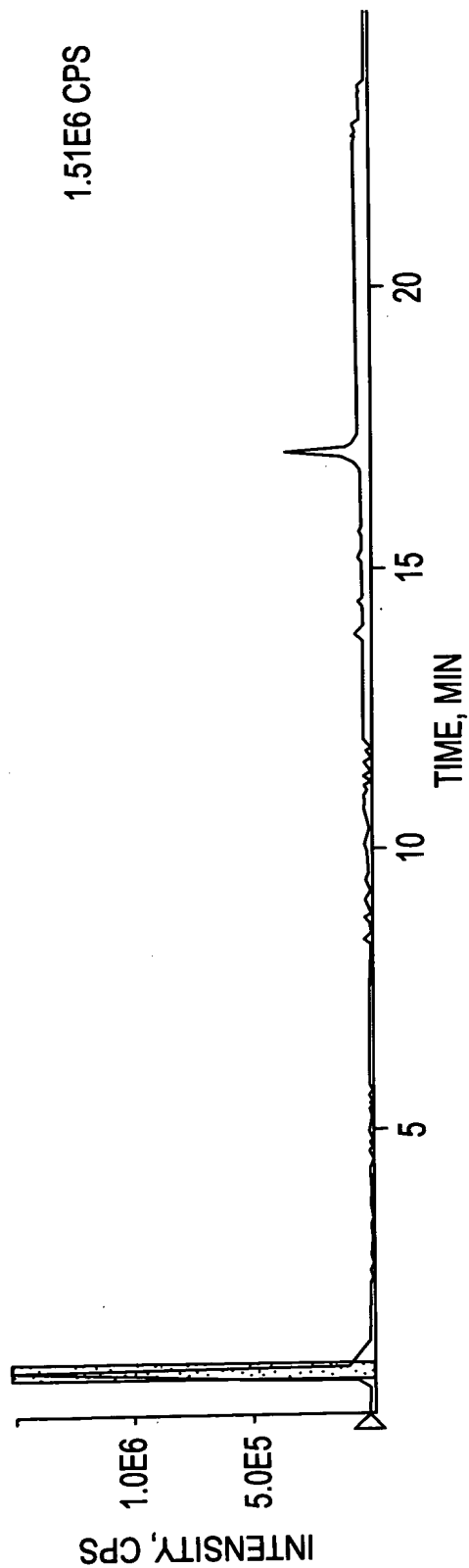


FIG. 50

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

+Q1 SIM (5 IONS): 0.77 MIN (21 SCANS) FROM 980429BDASIMA

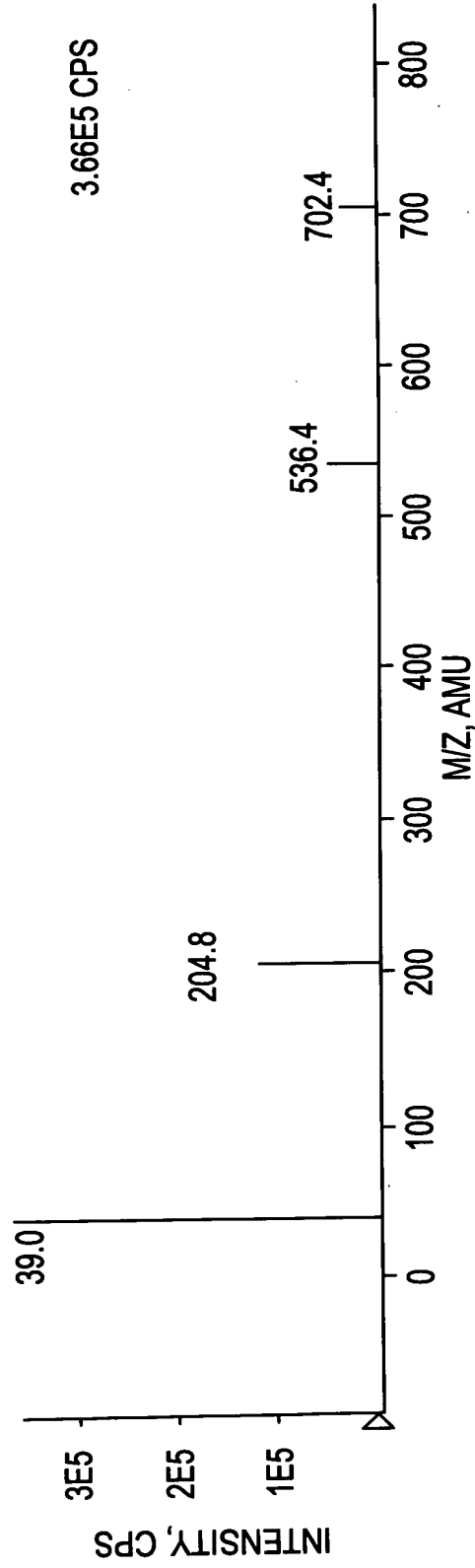


FIG. 51

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

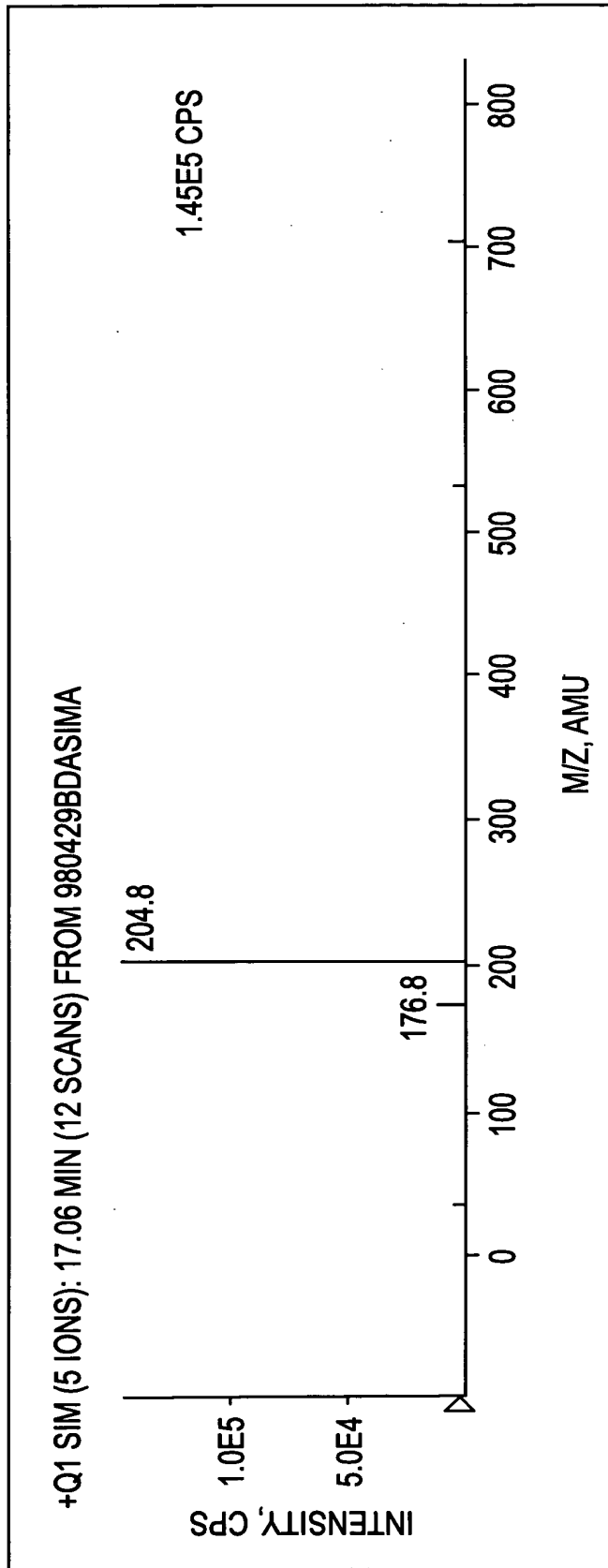


FIG. 53

17.06 MIN (12 SCANS) FROM 980429BDASIMA

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

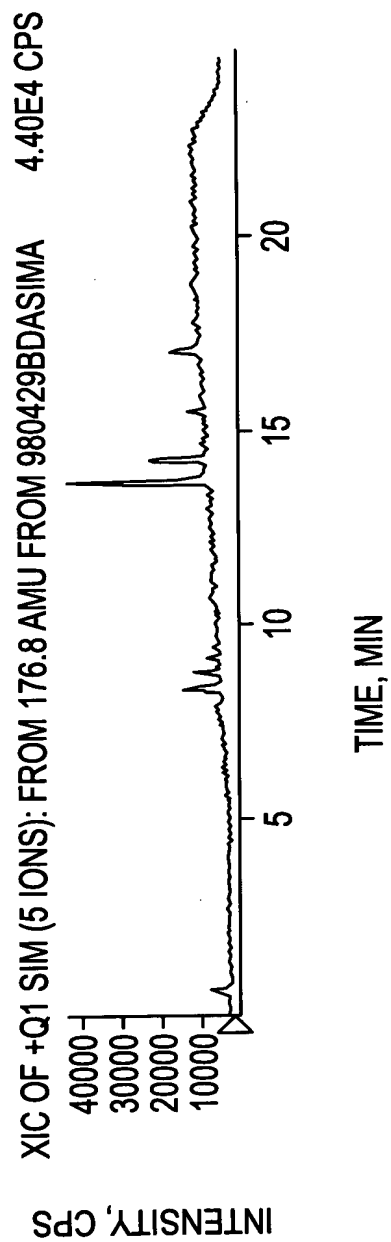


FIG. 54

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

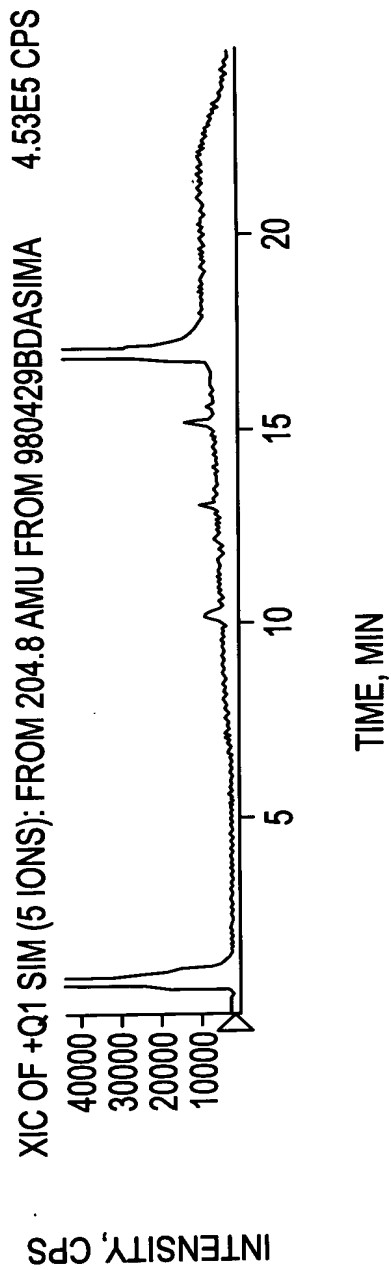


FIG. 55

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

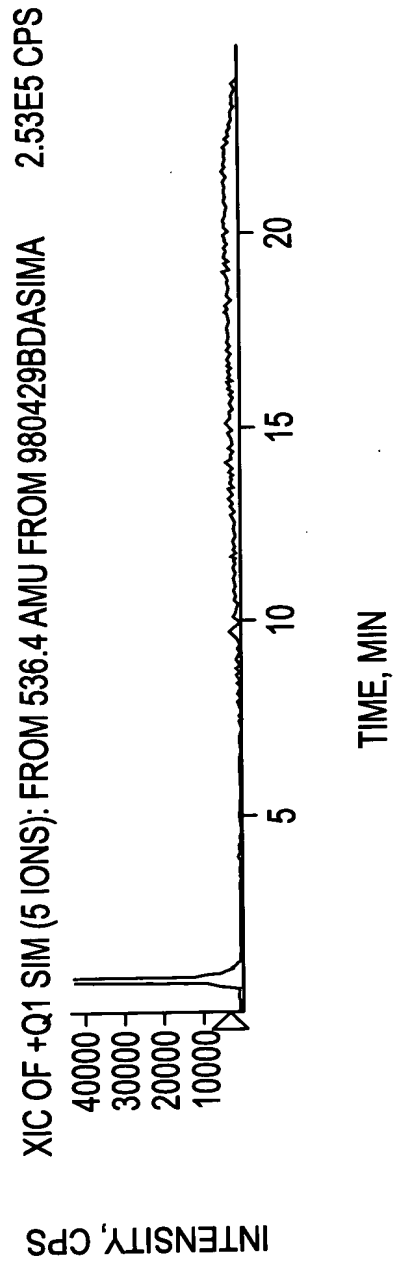


FIG. 56

APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

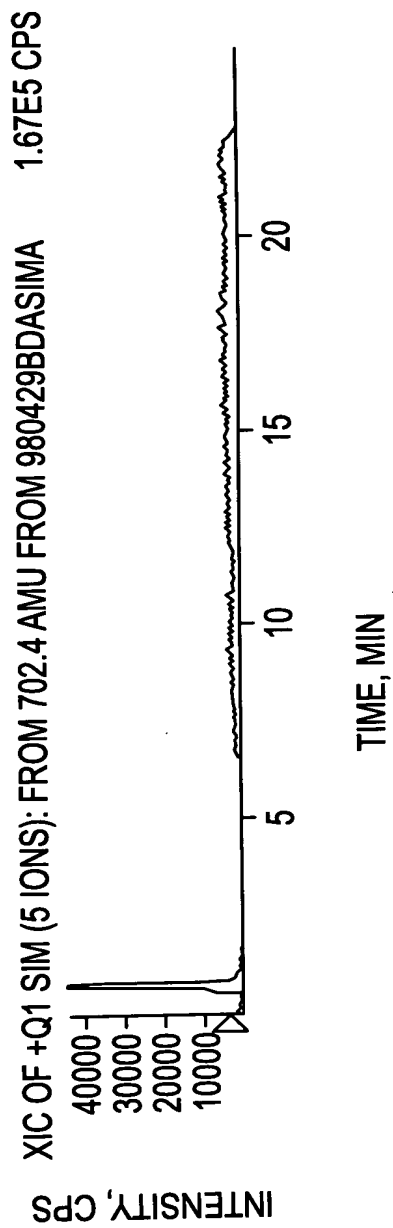


FIG. 57

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

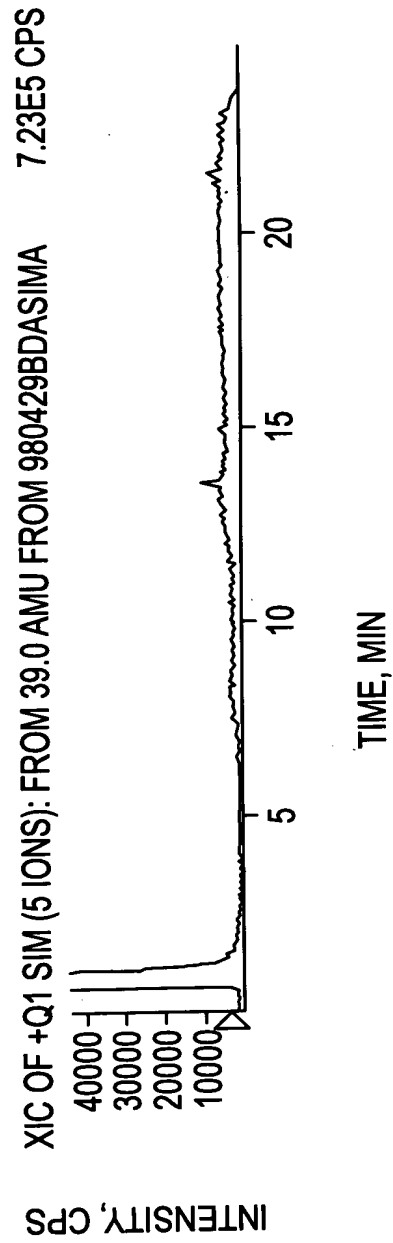


FIG. 58

APPROVED	Q. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

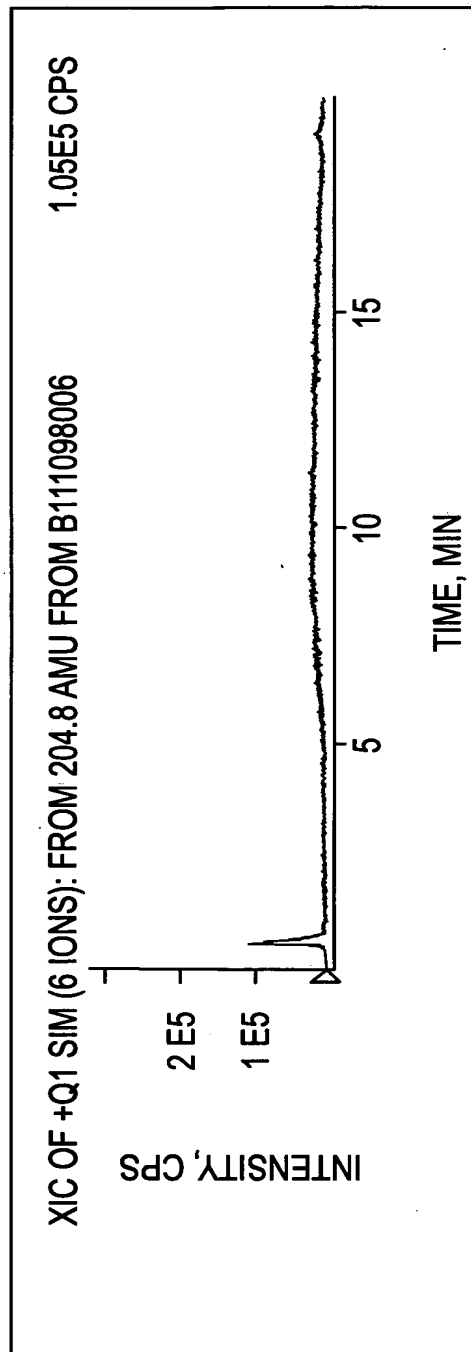


FIG. 62

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

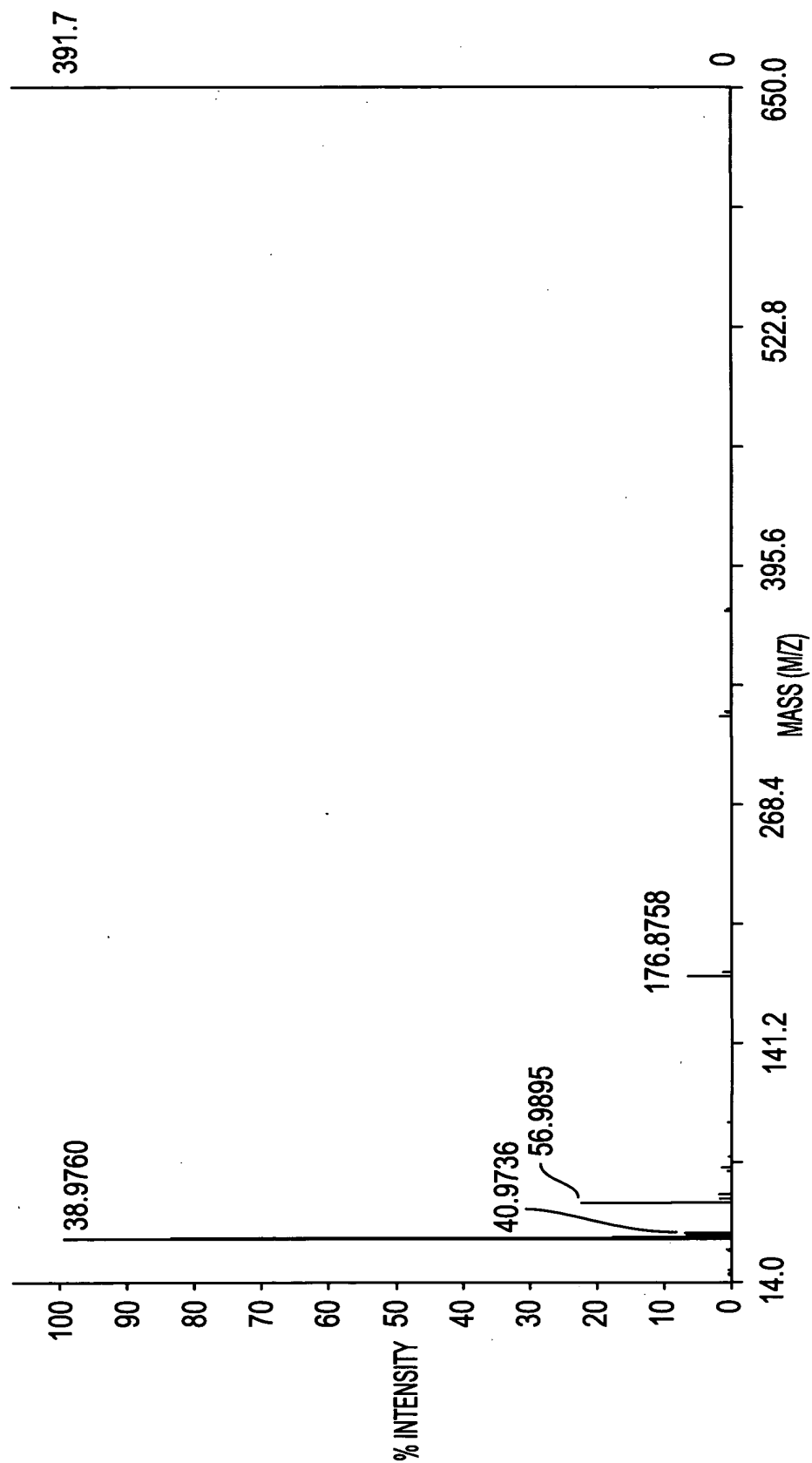


FIG. 63

APPROVED	C. S. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

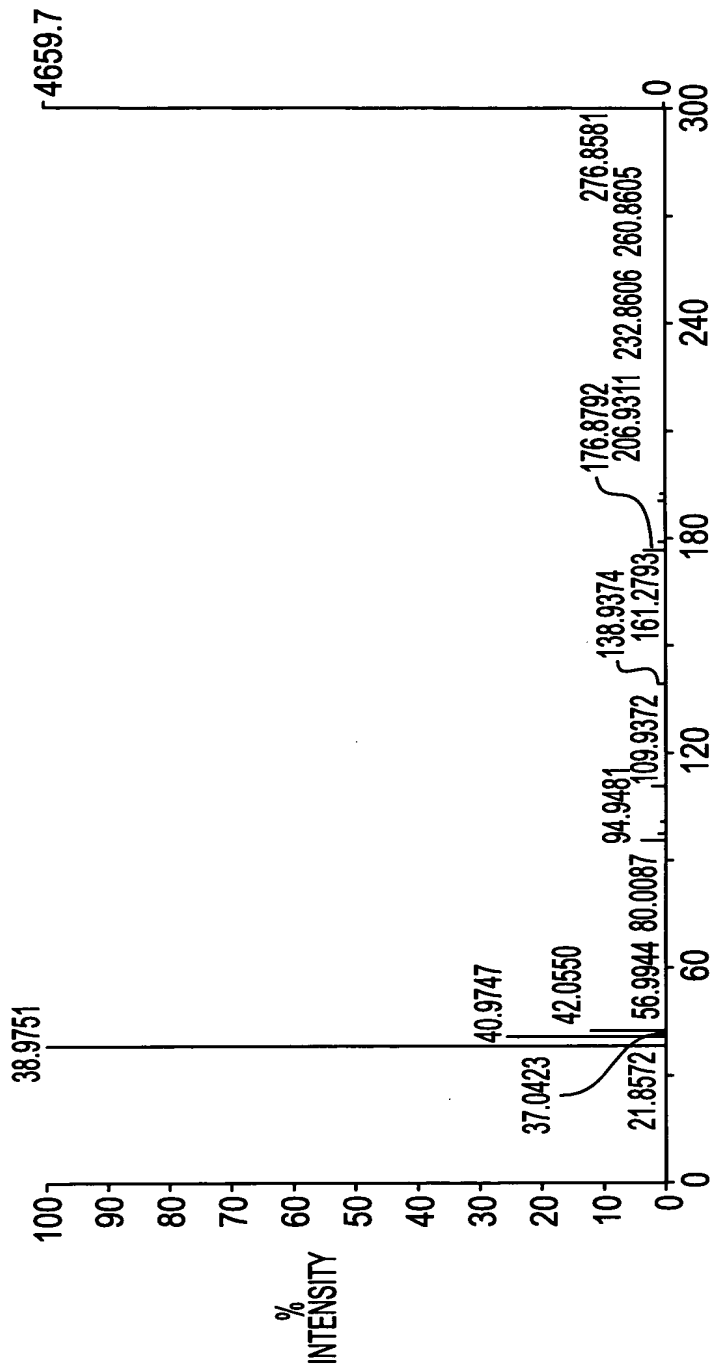


FIG. 64A

APPROVED	C.O. FIG.	
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DRAFTSMAN		



FIG.64B

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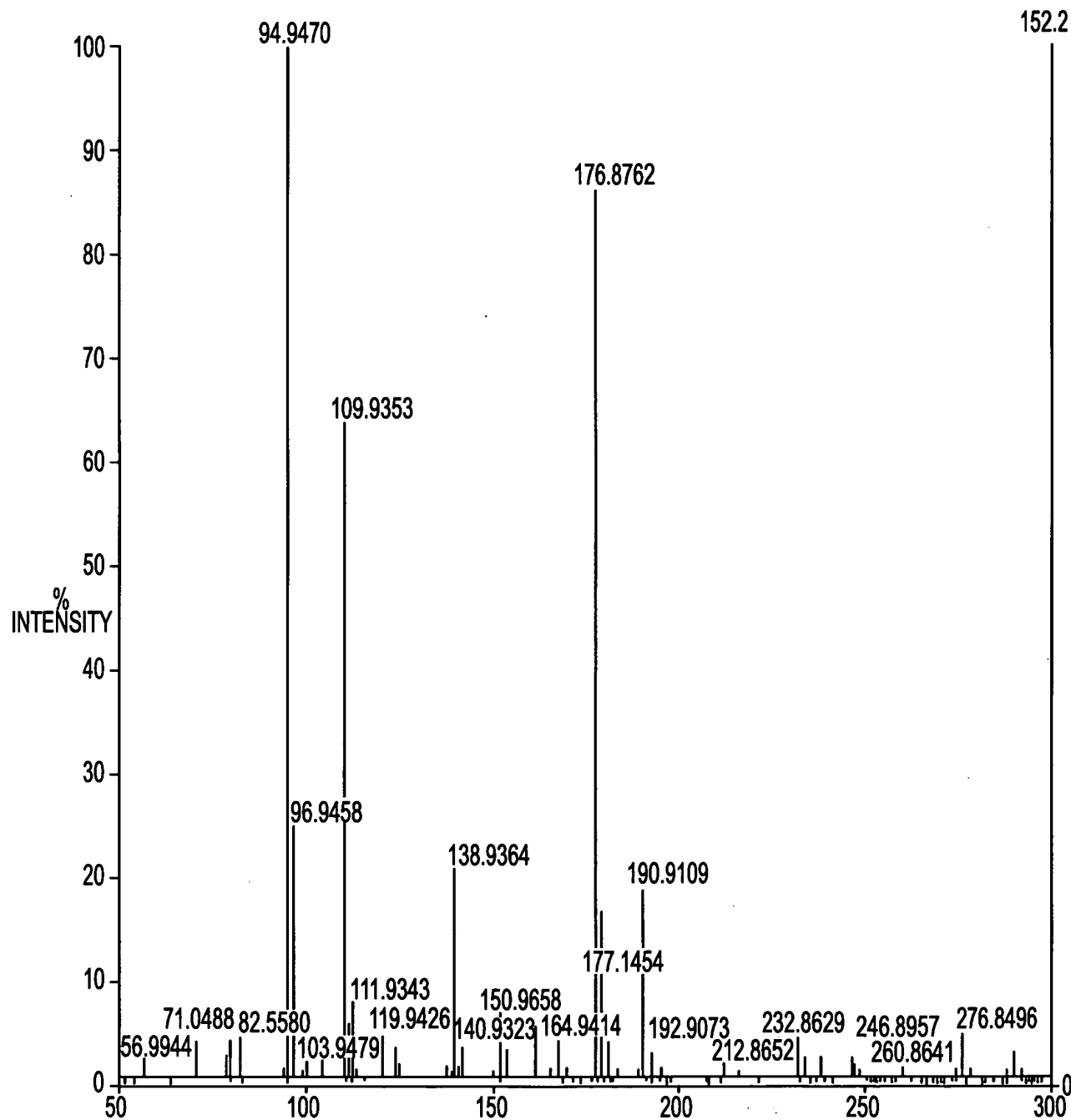


FIG.65

SCANNED

APPROVED	K. B. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

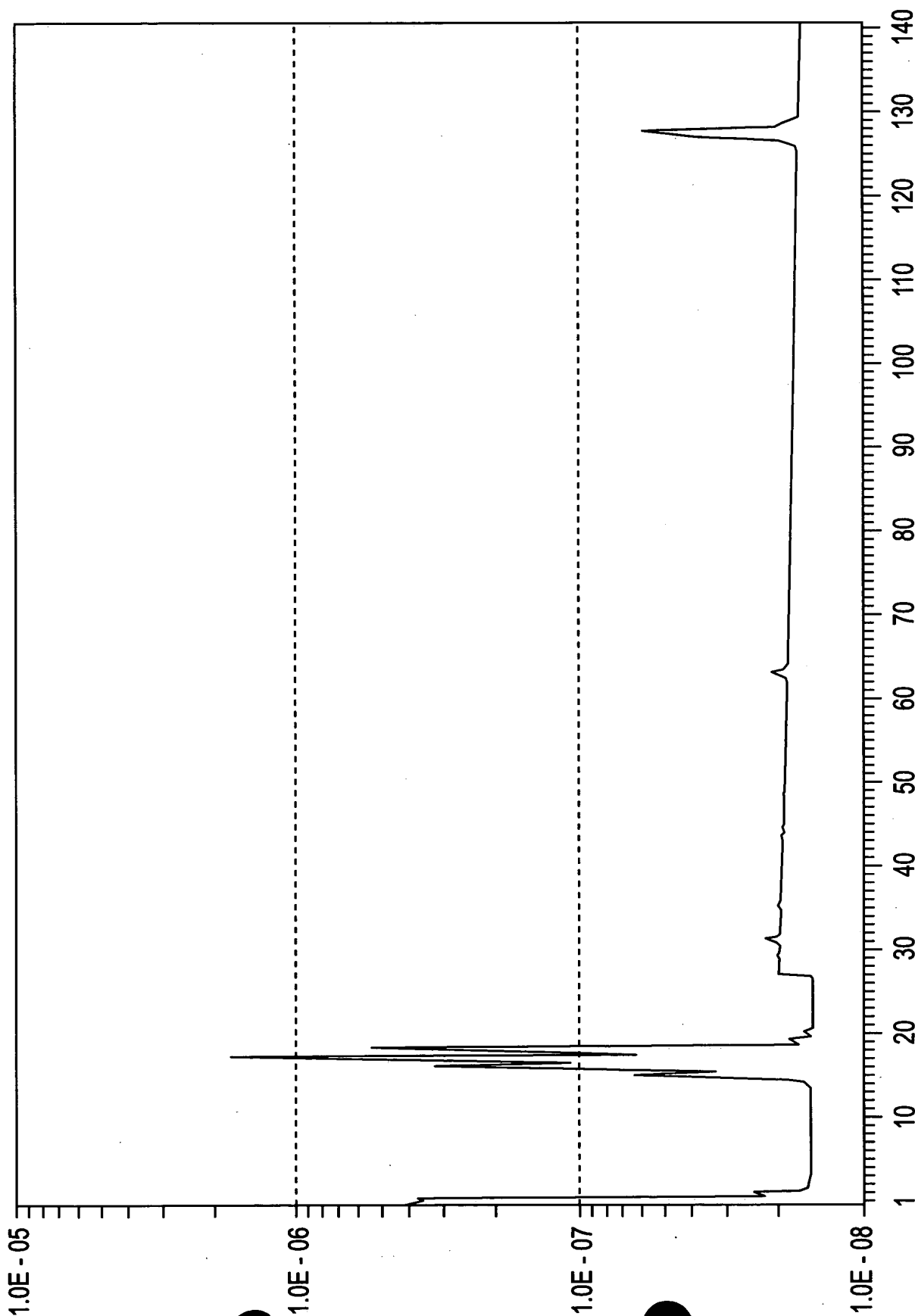


FIG. 66

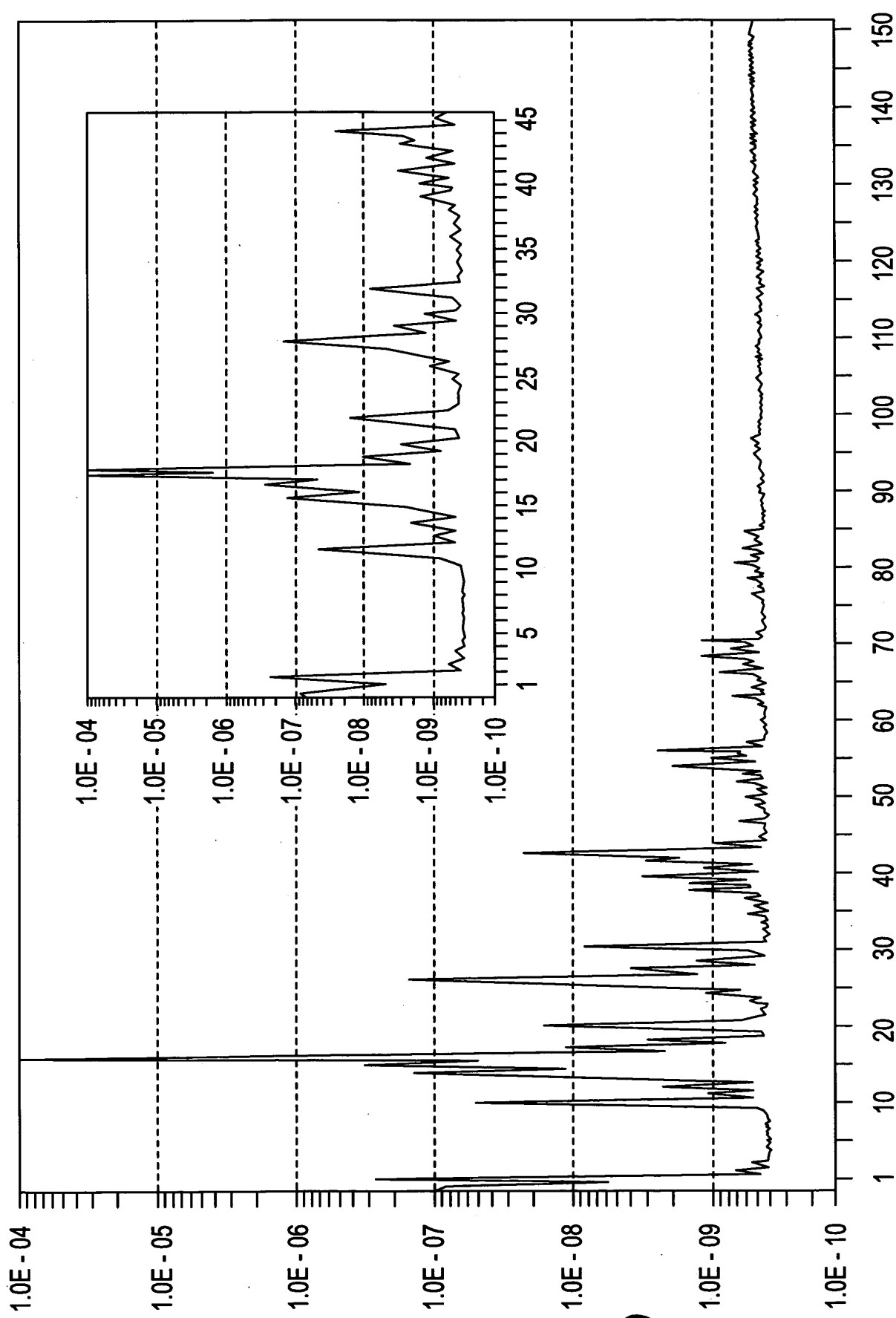


FIG. 67

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APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

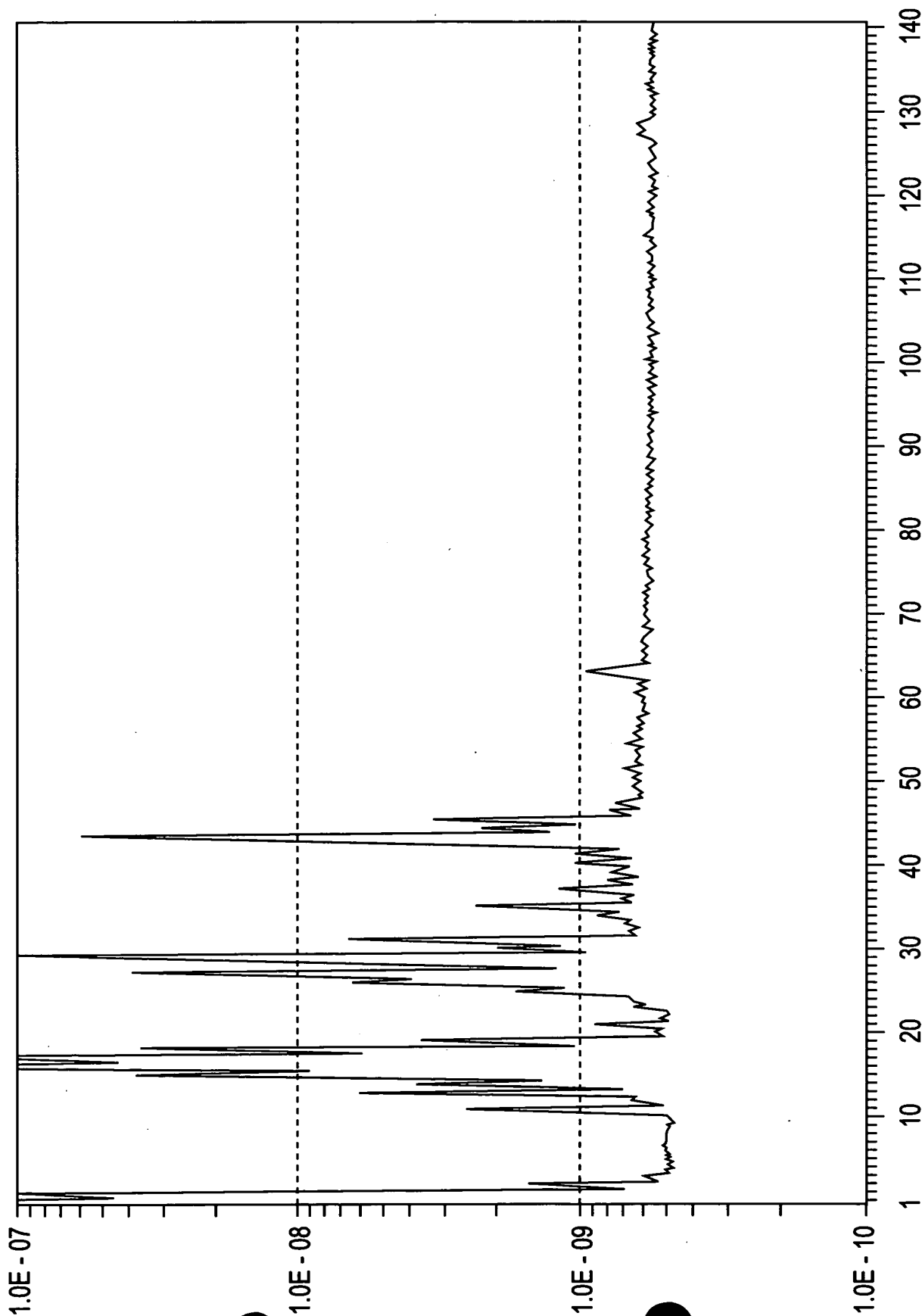


FIG. 68

THIS DOCUMENT CONTAINS NEITHER RECOMMENDATIONS NOR
 CONCLUSIONS OF THE NATIONAL BUREAU OF STANDARDS
 AND IS NOT INTENDED TO BE USED IN LEGAL PROCEEDINGS

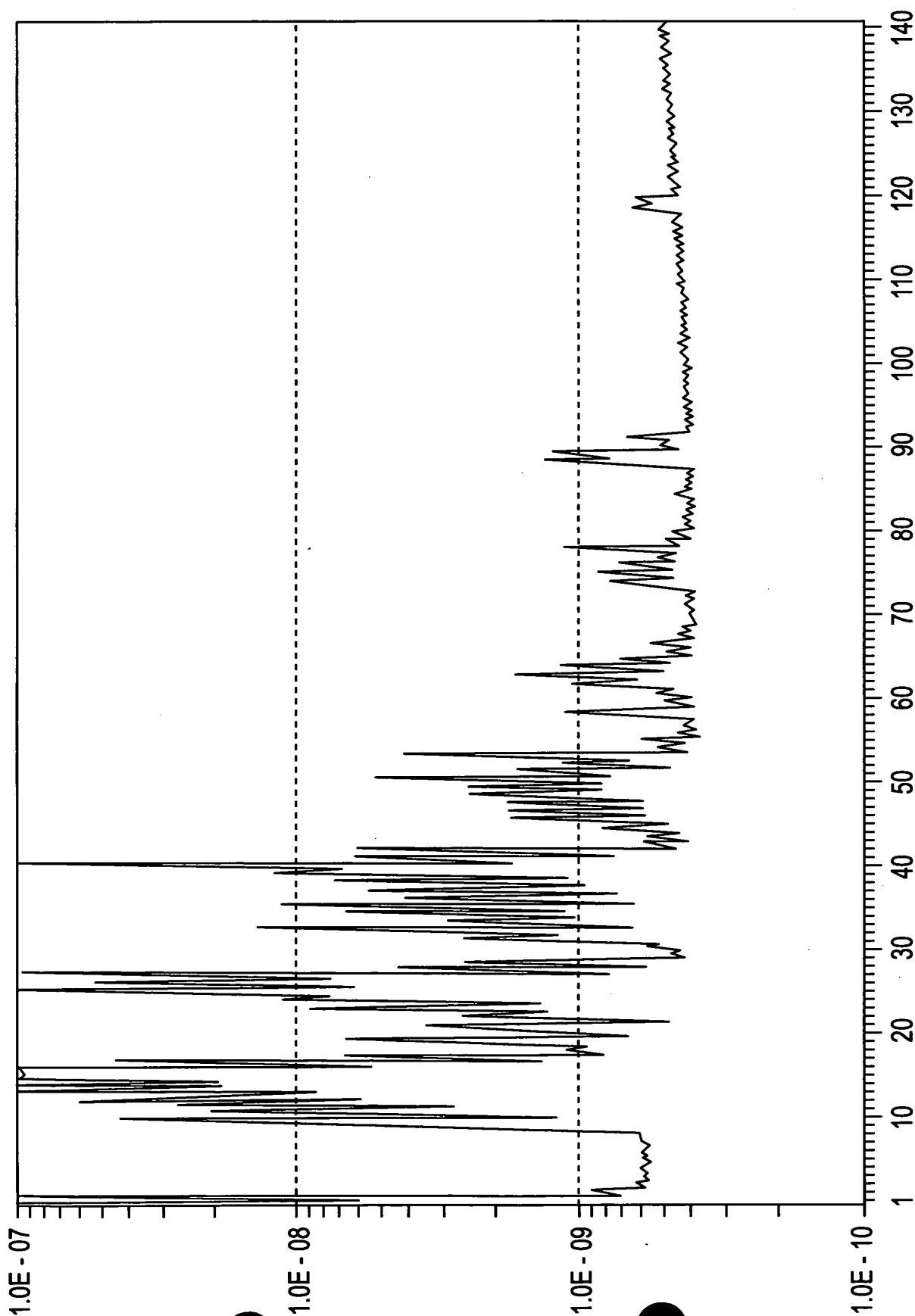


FIG. 69

THIS DOCUMENT CONTAINS NEITHER RECOMMENDATIONS NOR
CONCLUSIONS OF THE NATIONAL BUREAU OF STANDARDS
AND IS NOT TO BE USED IN CONNECTION WITH ANY
LEGAL PROCEEDING OR IN CONNECTION WITH ANY
CLAIM IN PATENT PROCEEDINGS

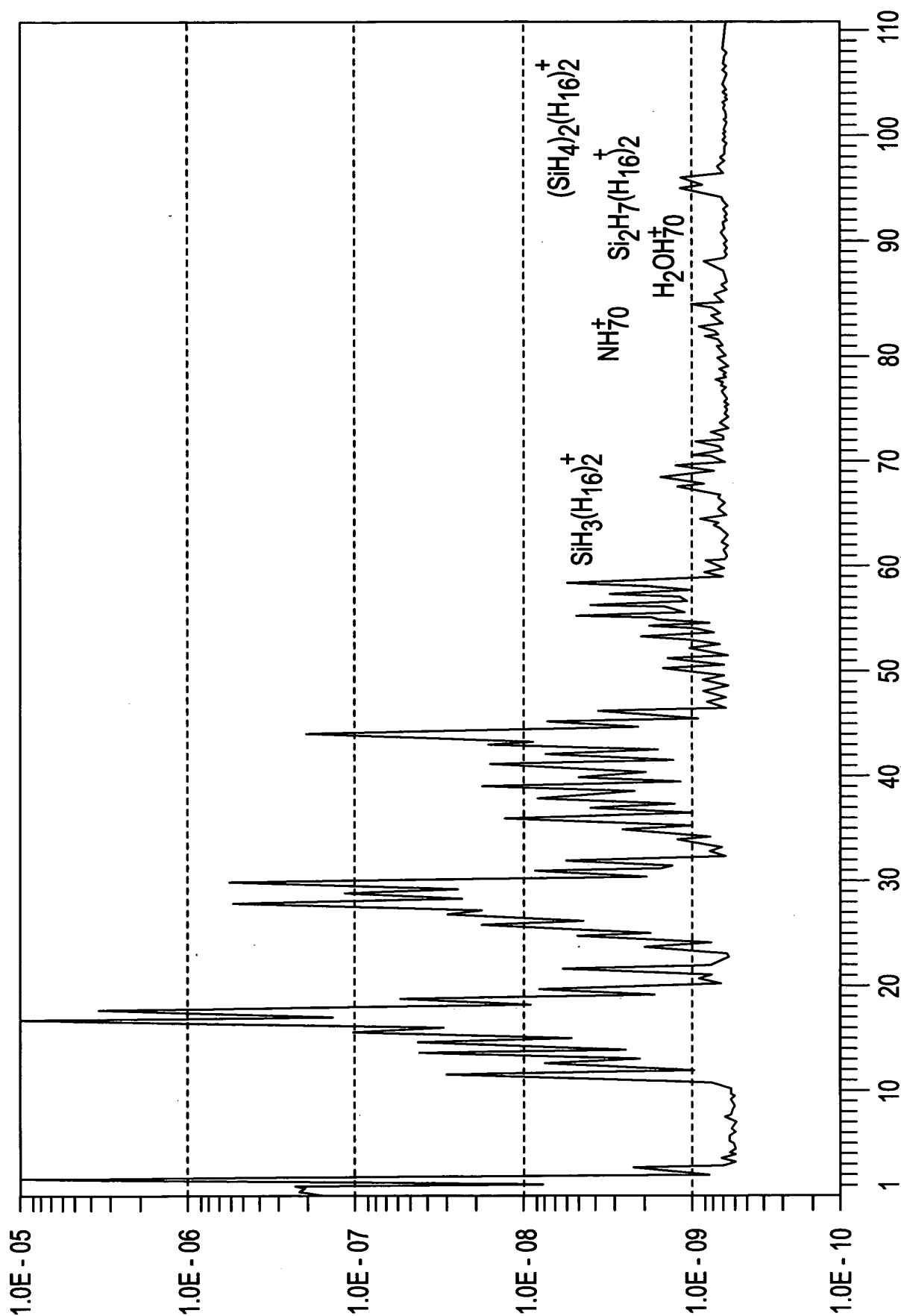


FIG. 70

APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

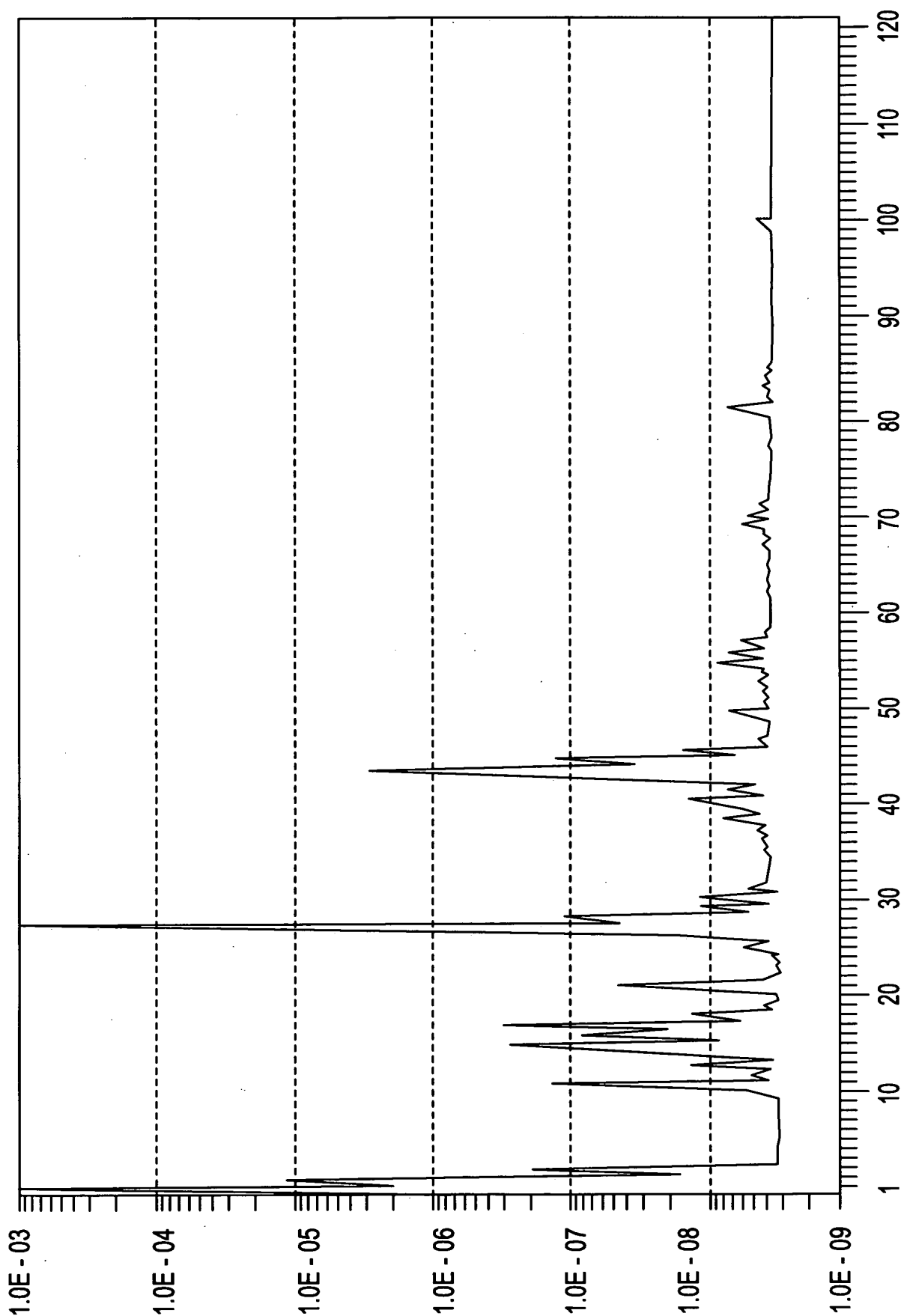


FIG. 71

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APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

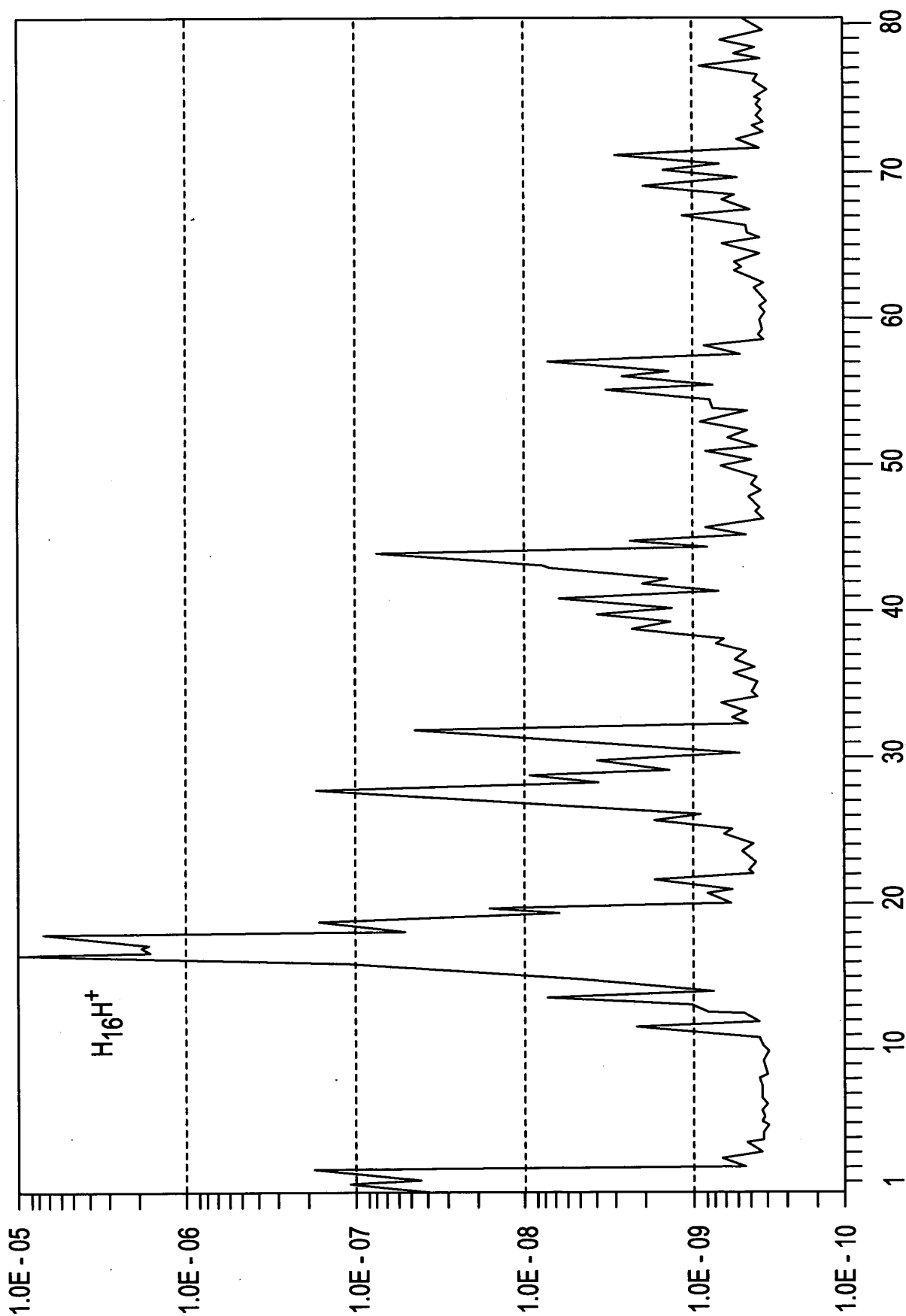


FIG. 72

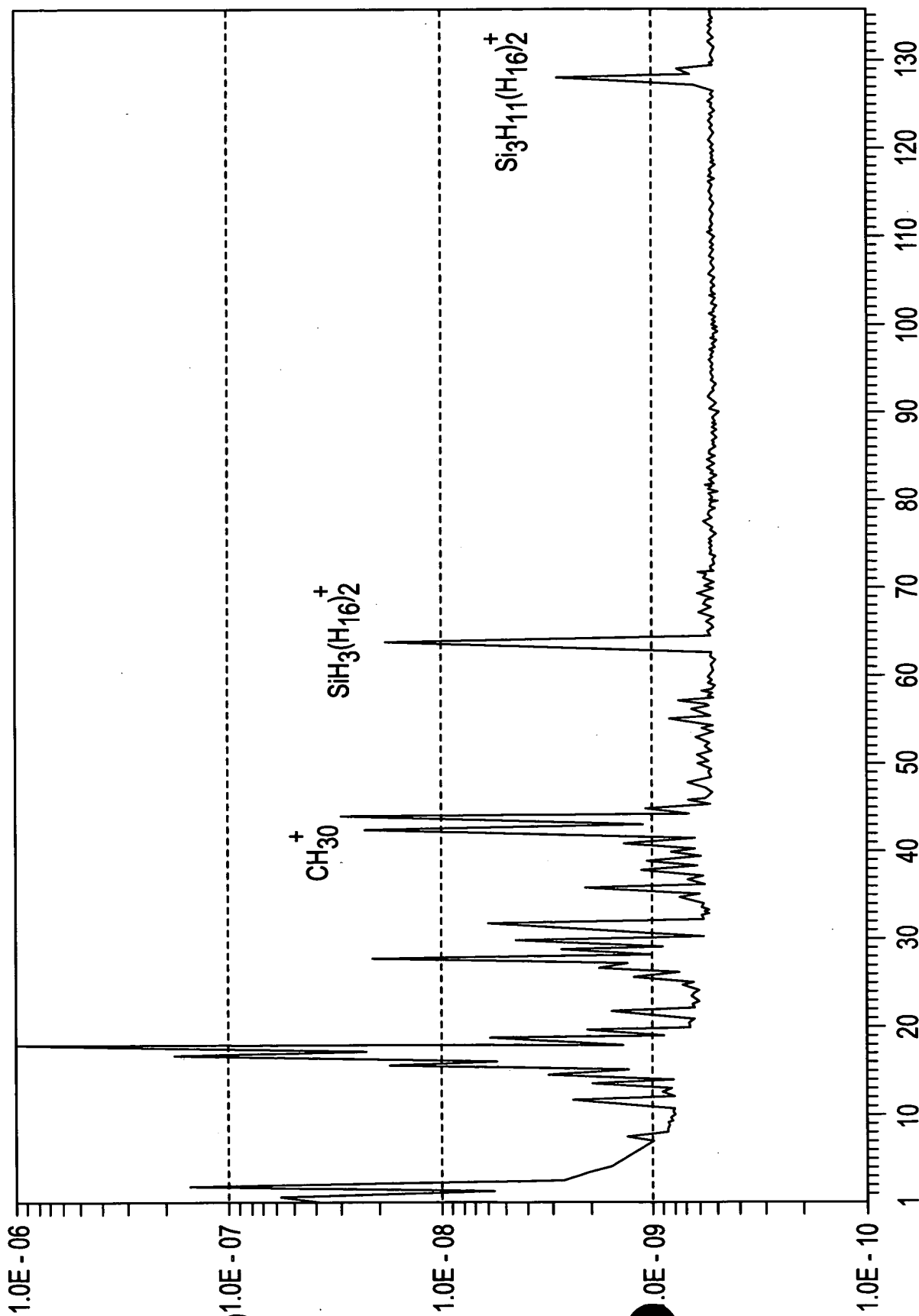


FIG. 74

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APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

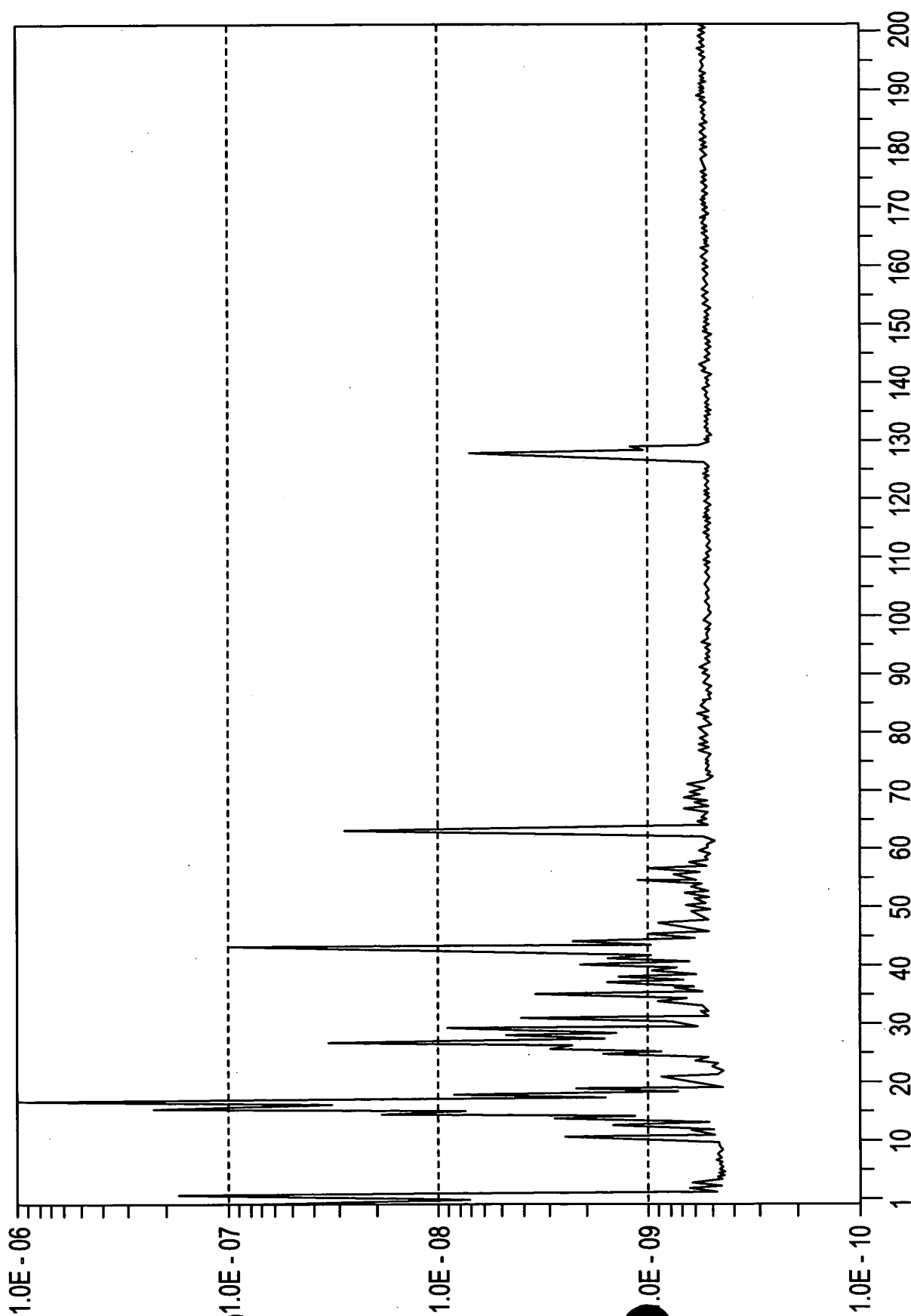


FIG. 75

THIS DOCUMENT CONTAINS NEITHER RECOMMENDATIONS NOR
 CONCLUSIONS OF THE NATIONAL BUREAU OF STANDARDS
 AND IS NOT INTENDED TO BE USED IN LEGAL PROCEEDINGS

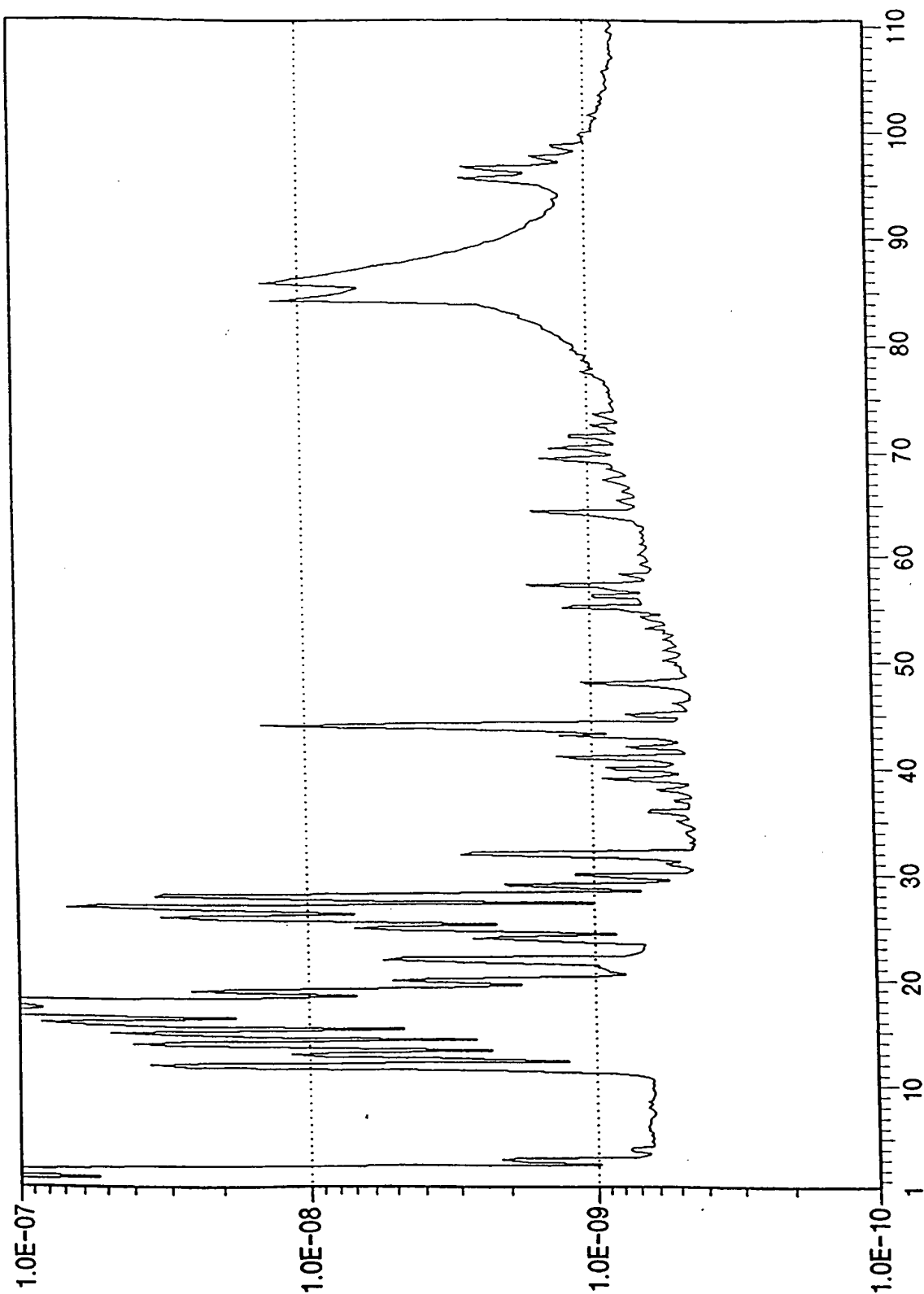


Fig. 76

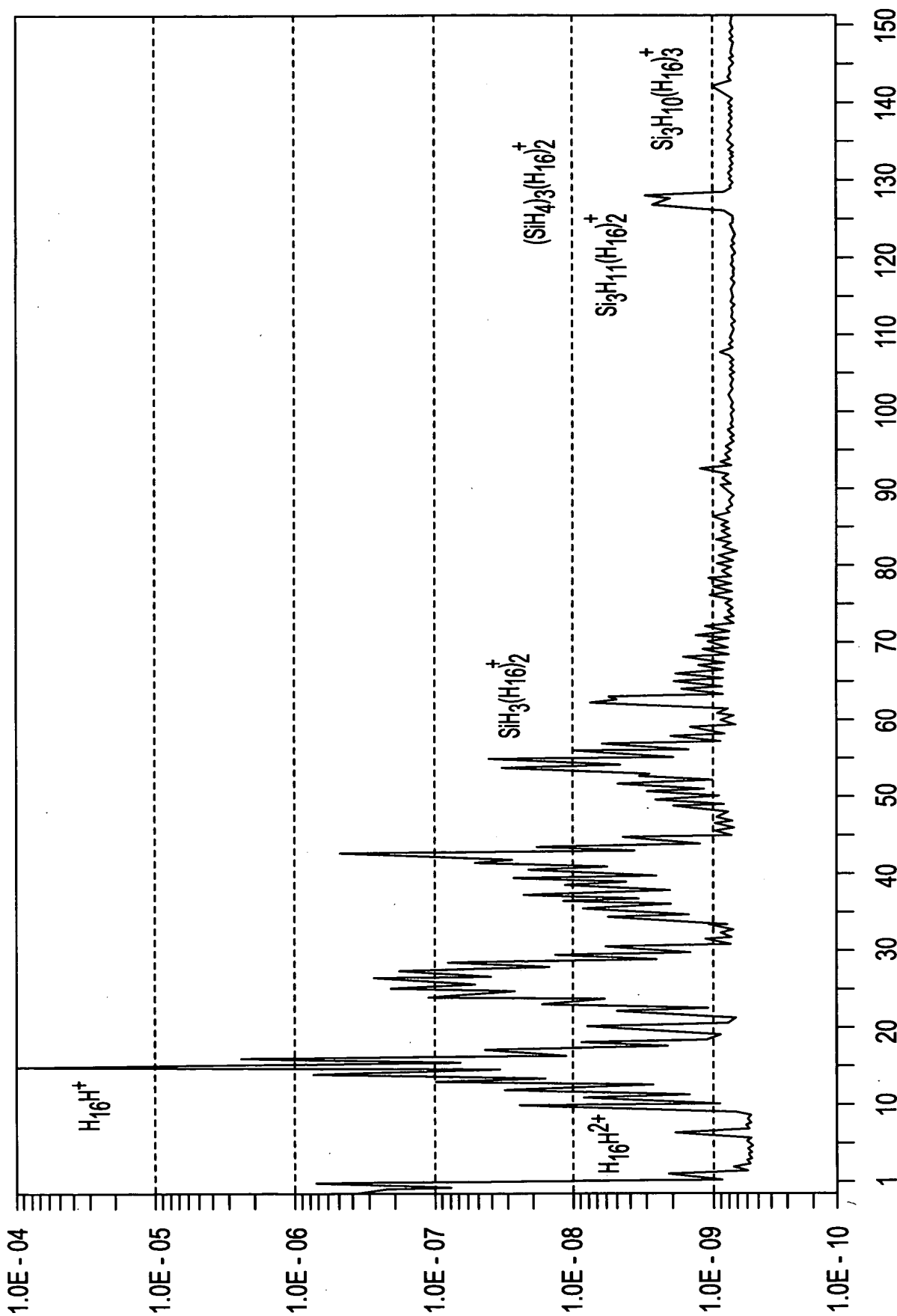


FIG. 77

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 AND IS NOT INTENDED TO BE USED IN LEGAL PROCEEDINGS

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

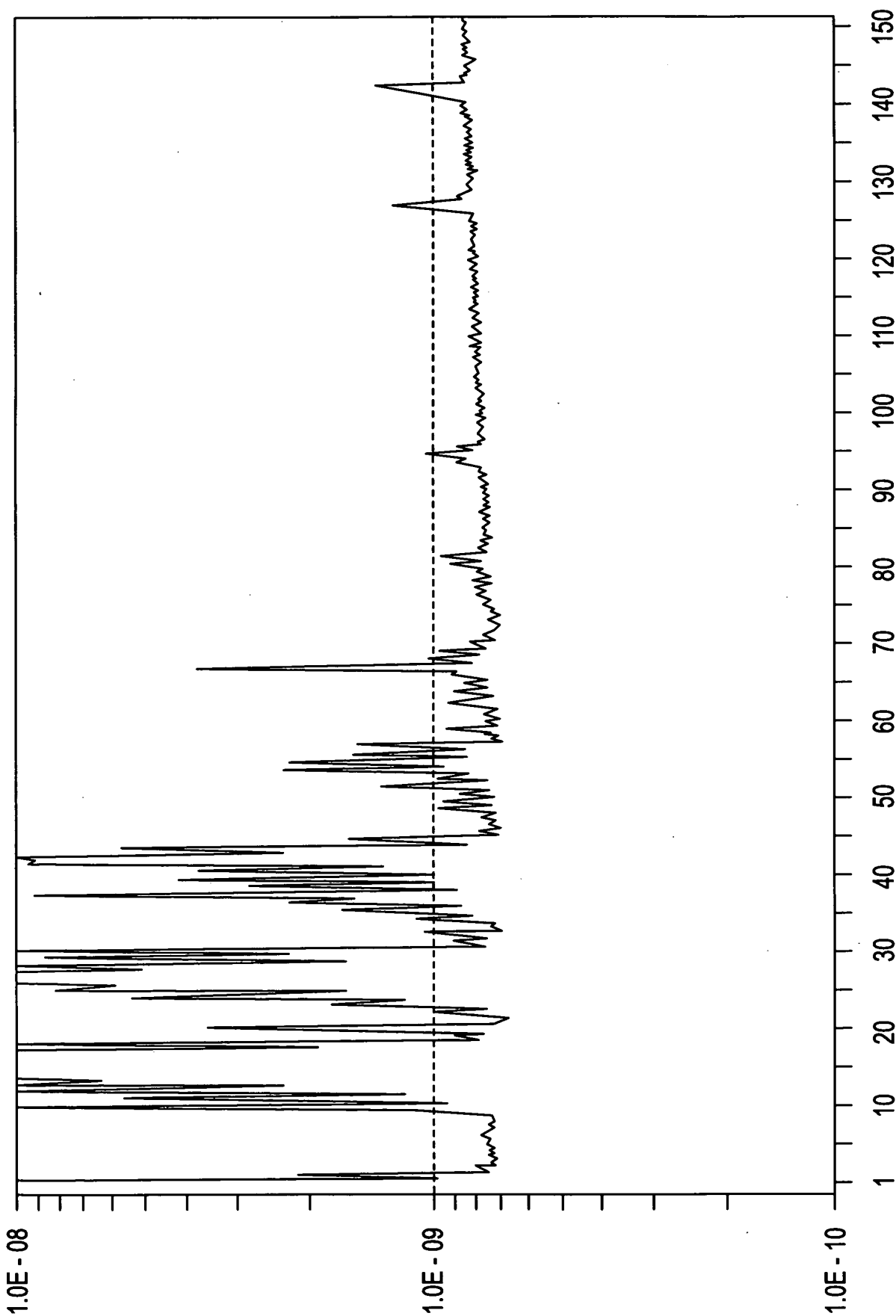


FIG. 78

any data may be used for any purpose without charge to the user of this data.

APPROVED	C. S. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

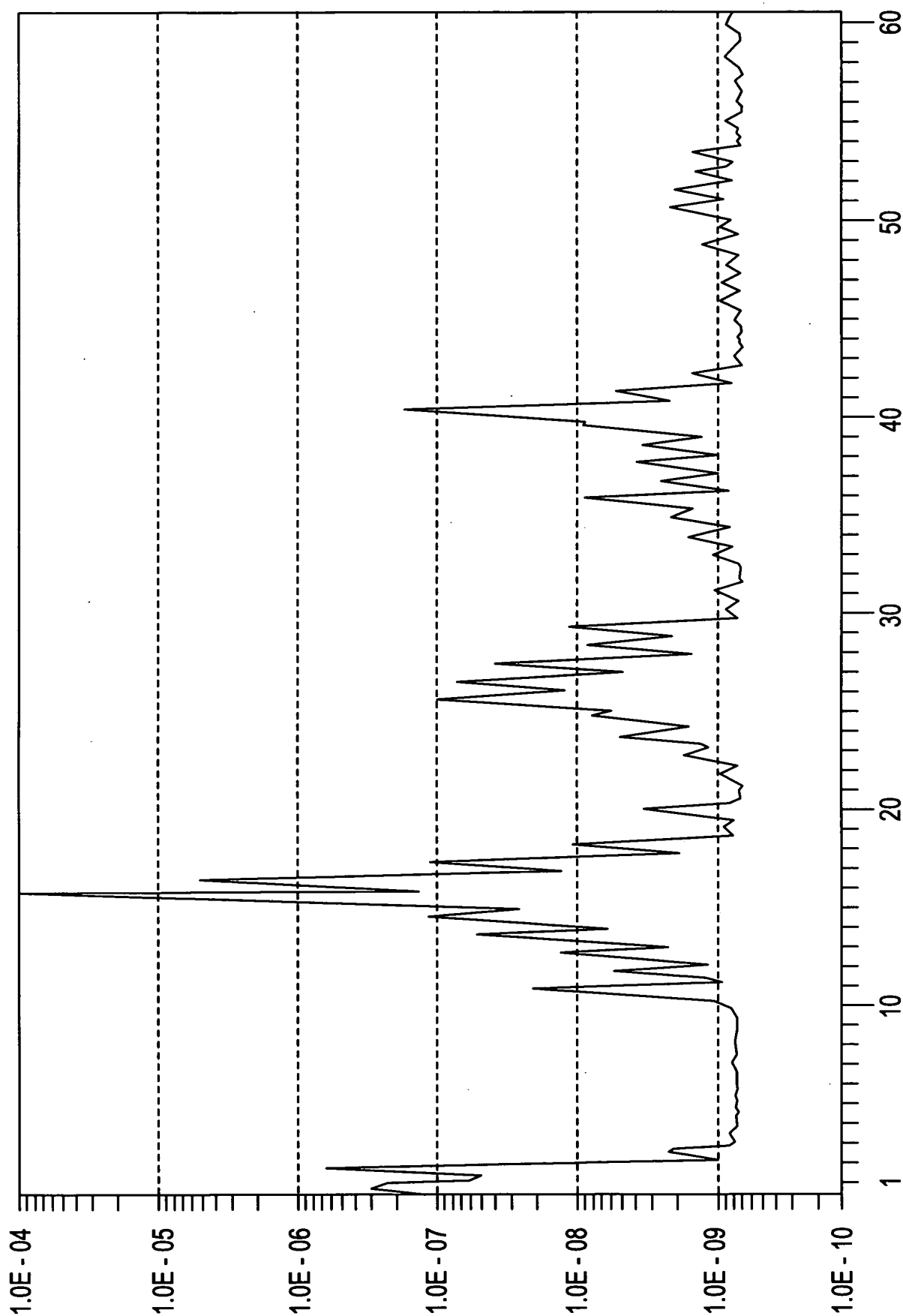


FIG. 79

... ..

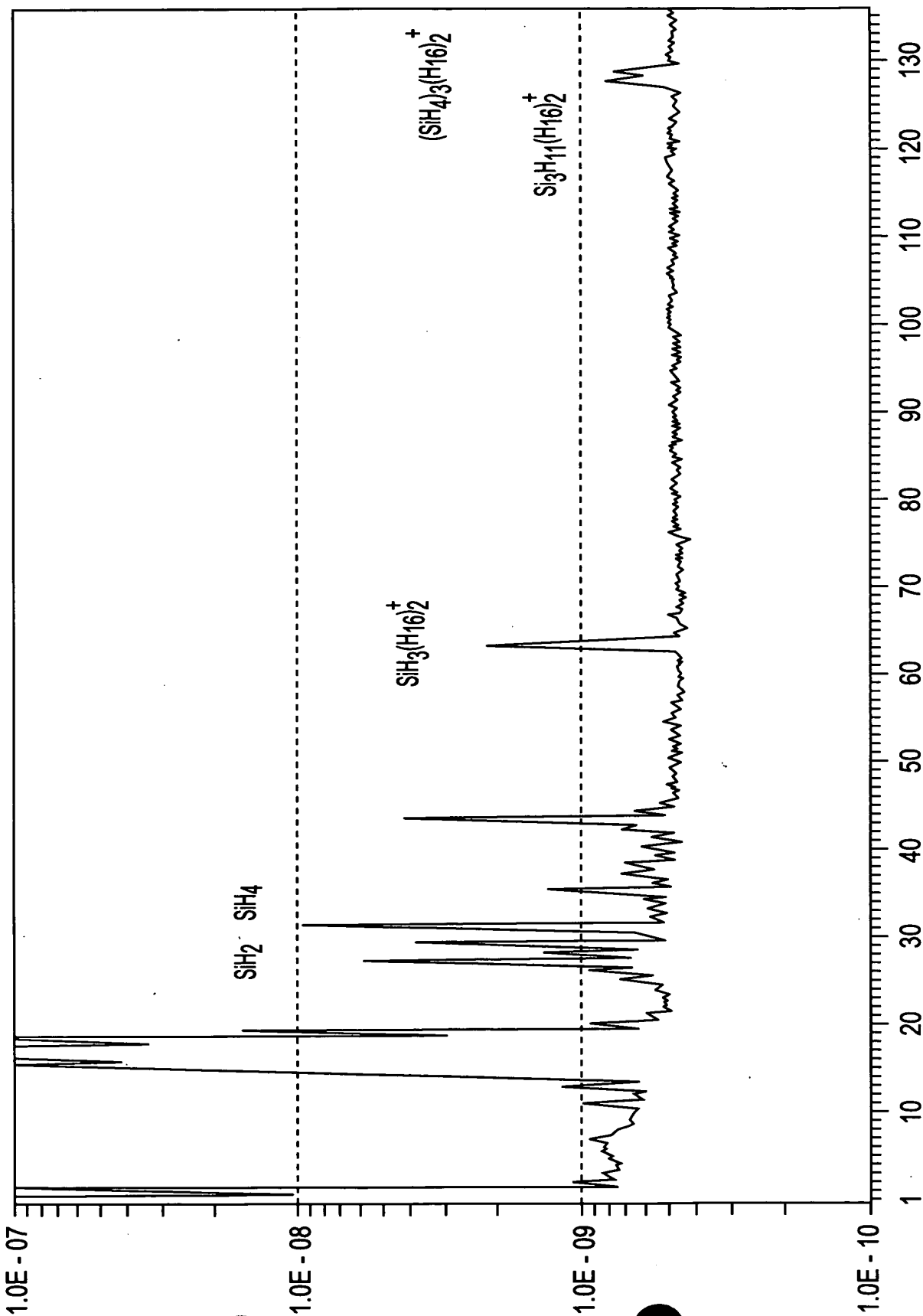


FIG. 80

APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

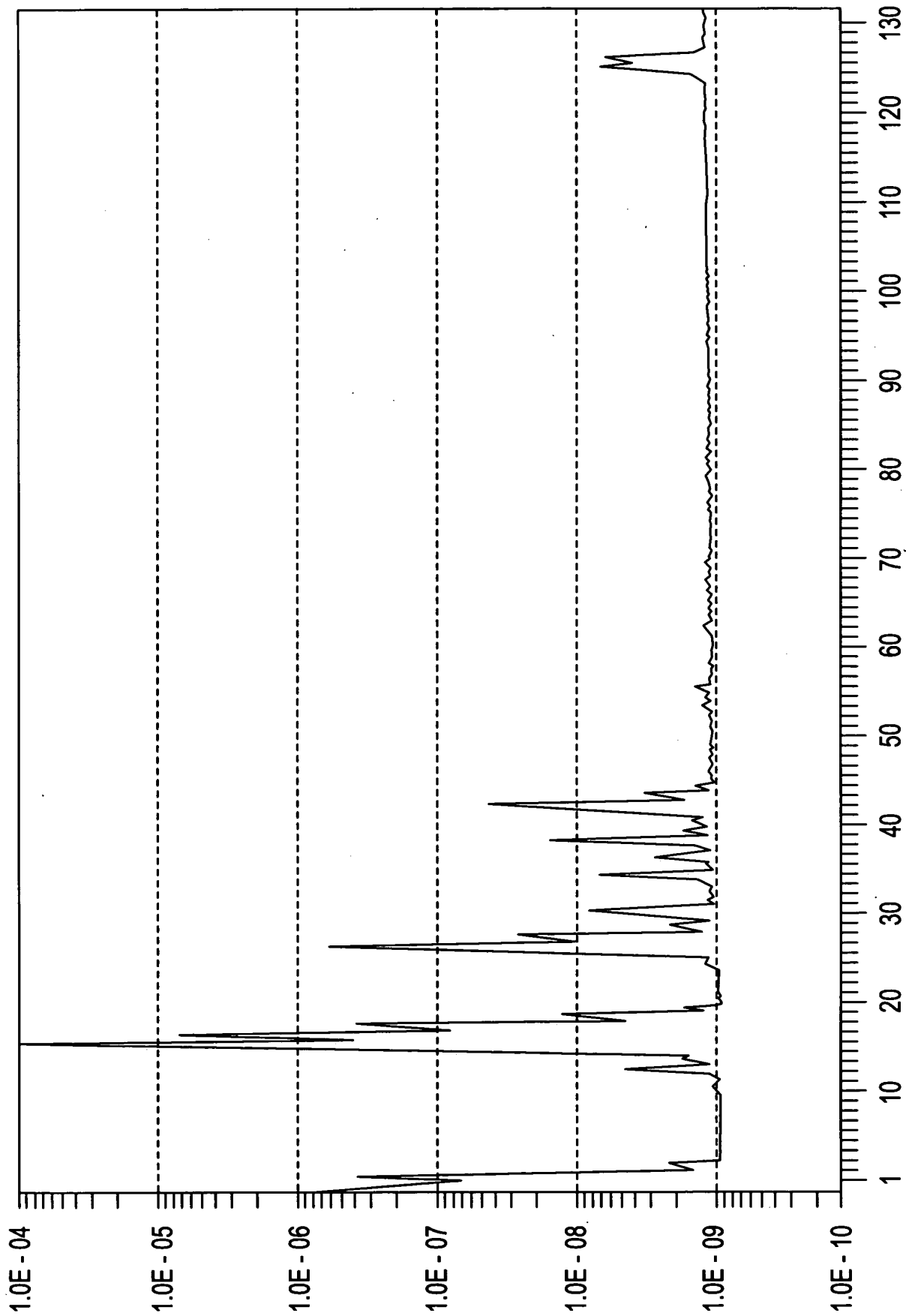


FIG. 82

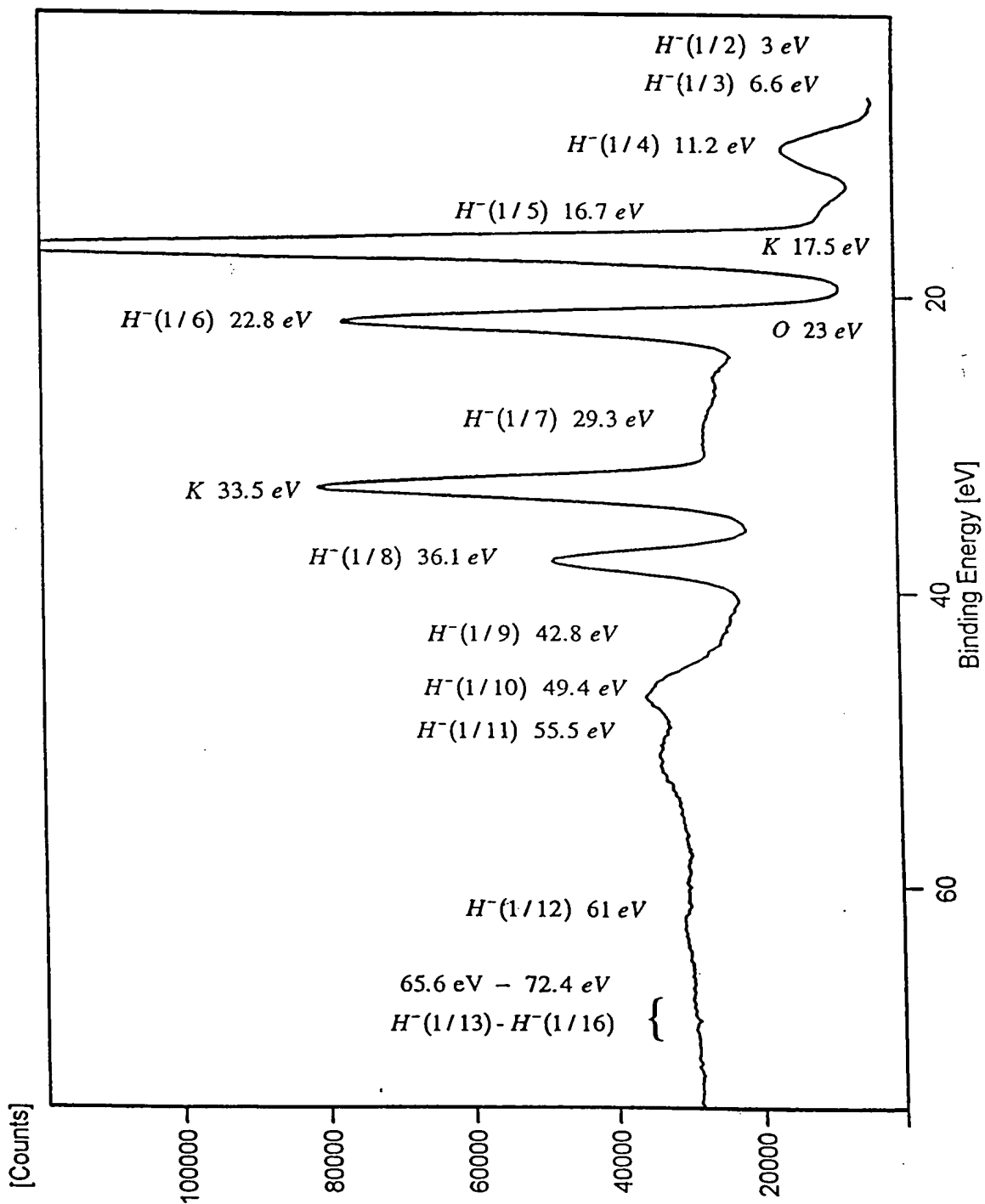


Fig. 83

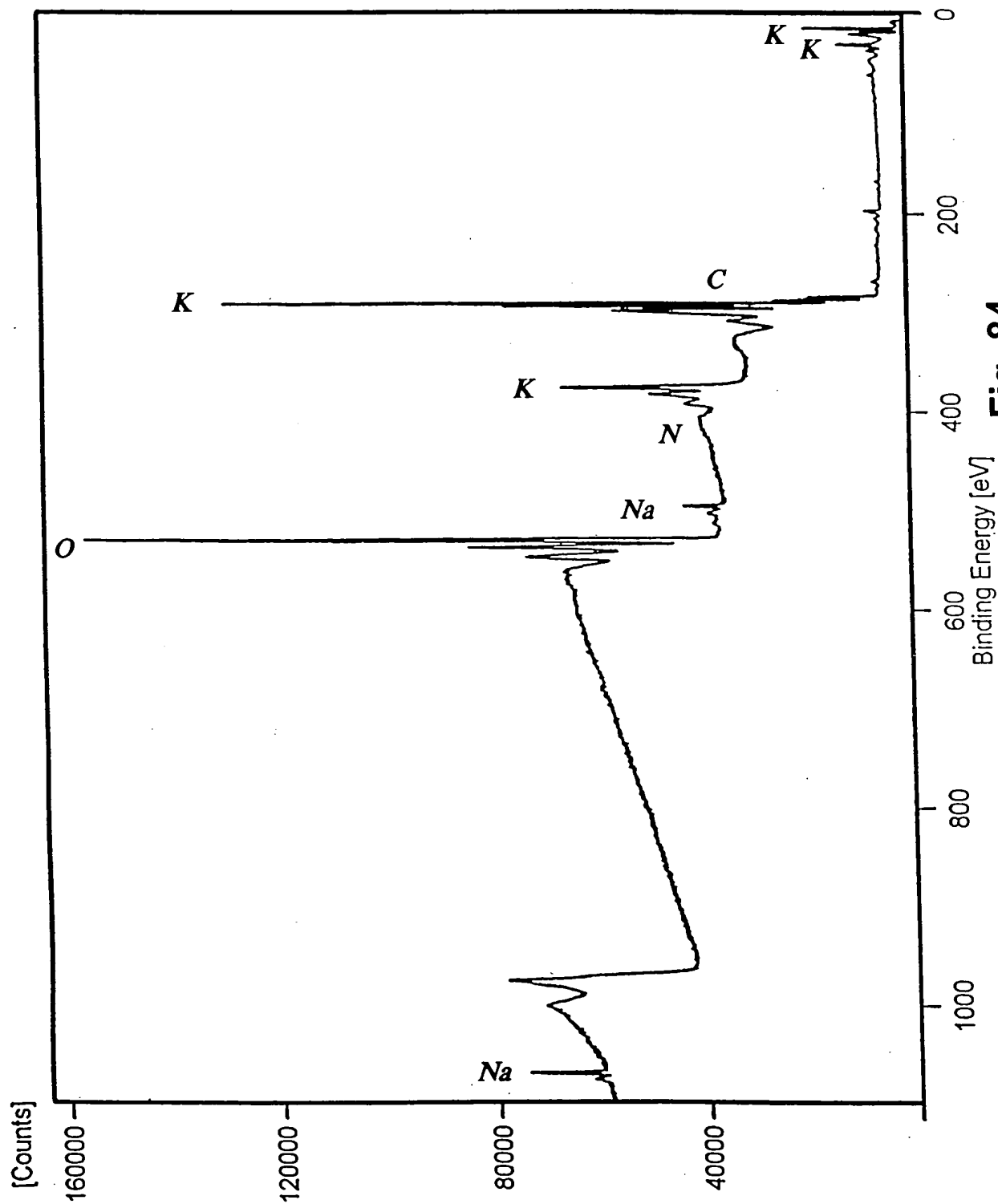


Fig. 84

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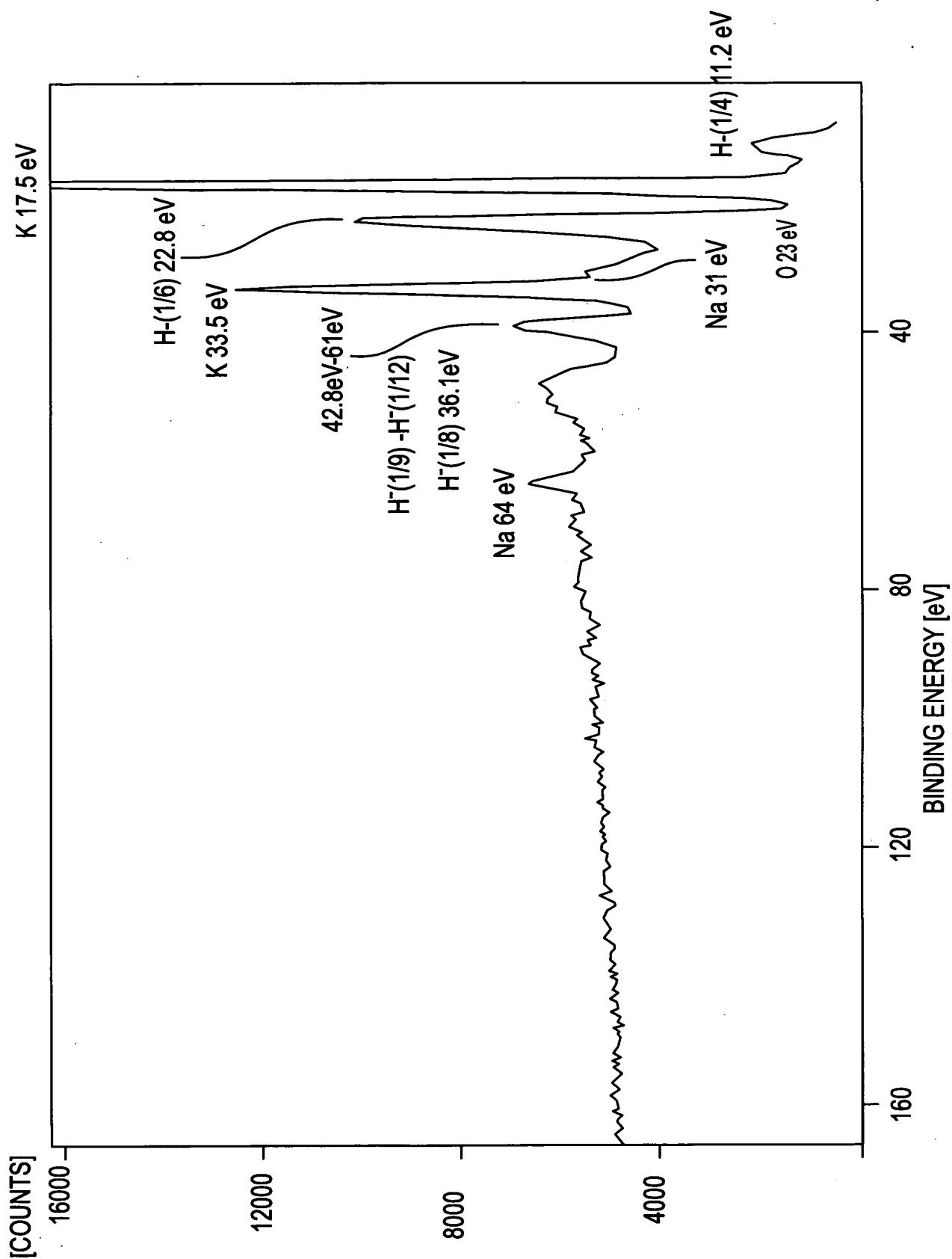
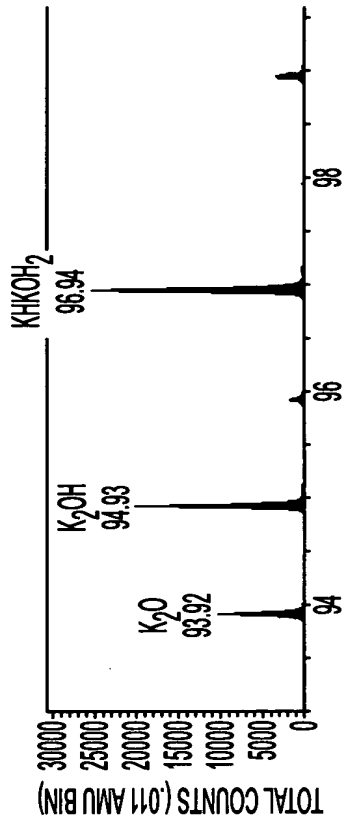


FIG. 85

APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 86



0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

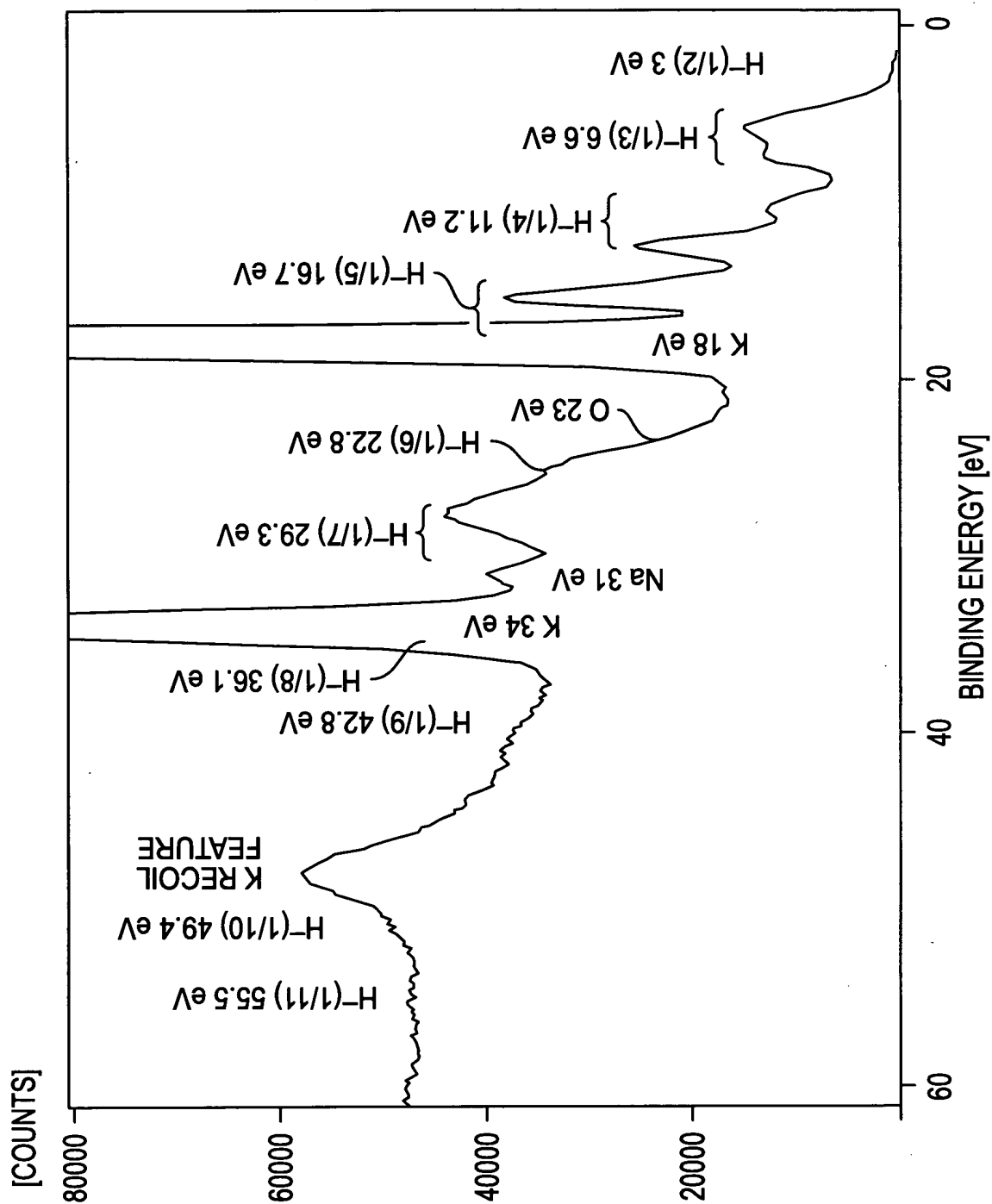


FIG. 87

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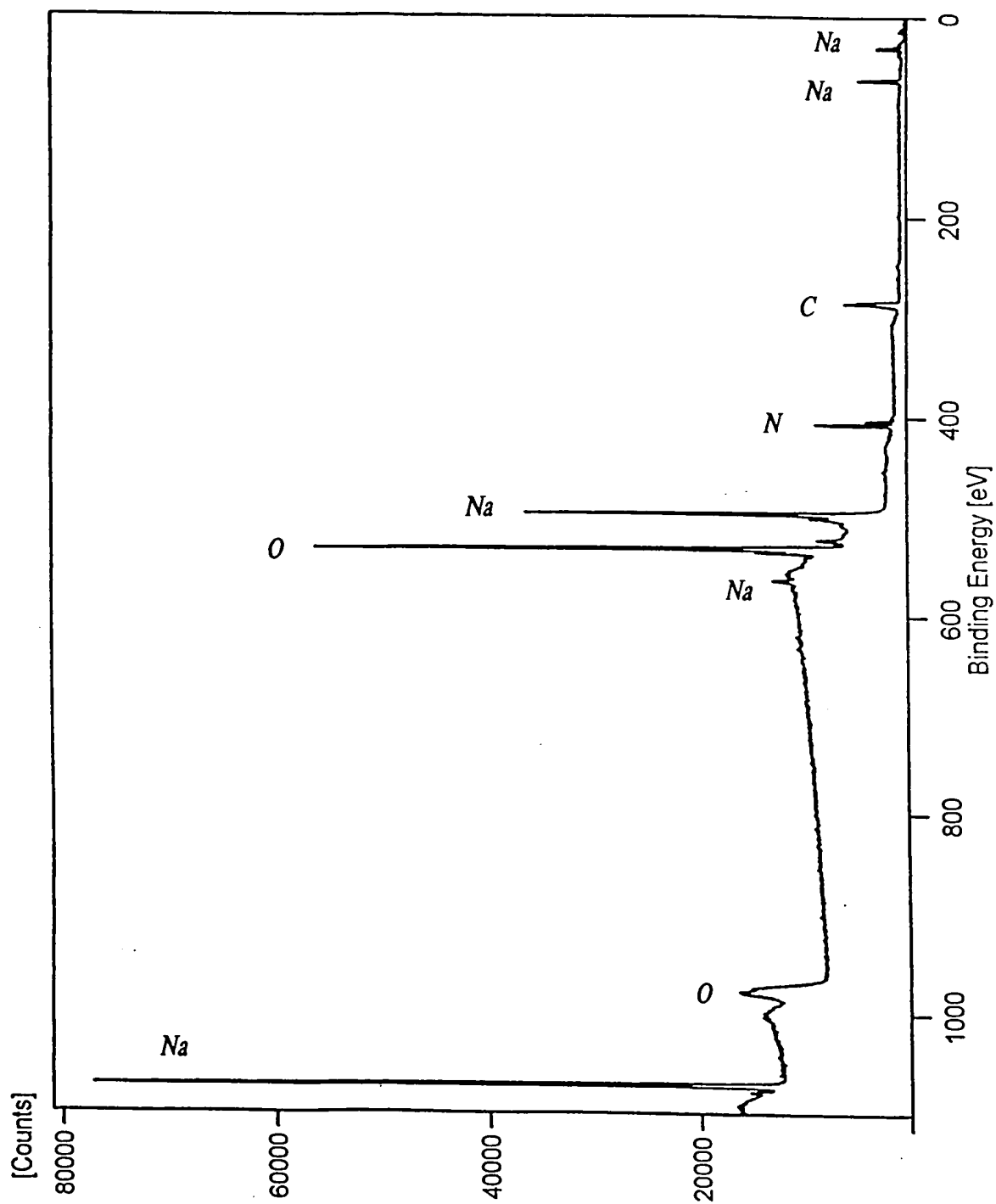


Fig. 88

[illegible]

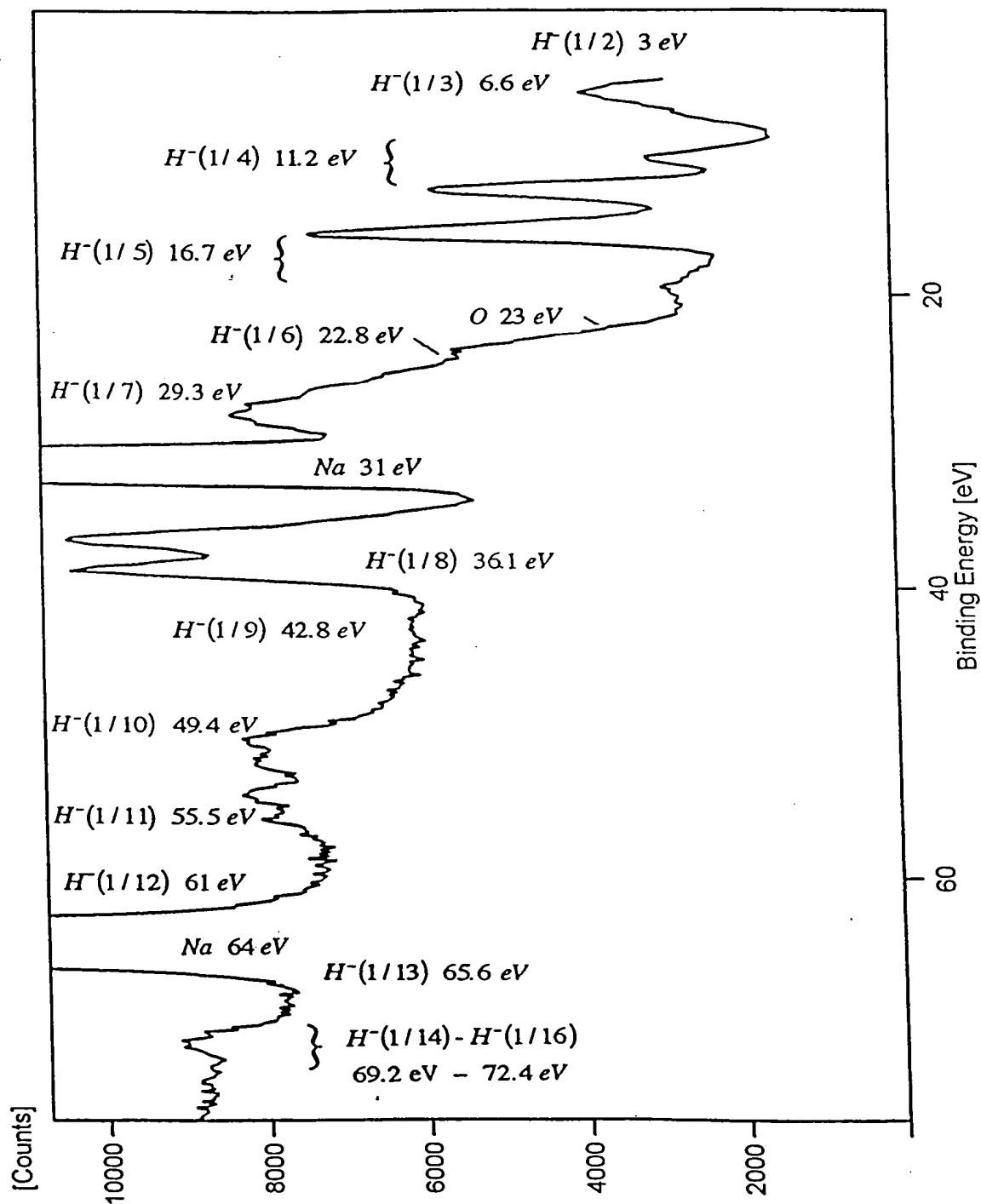


Fig. 89

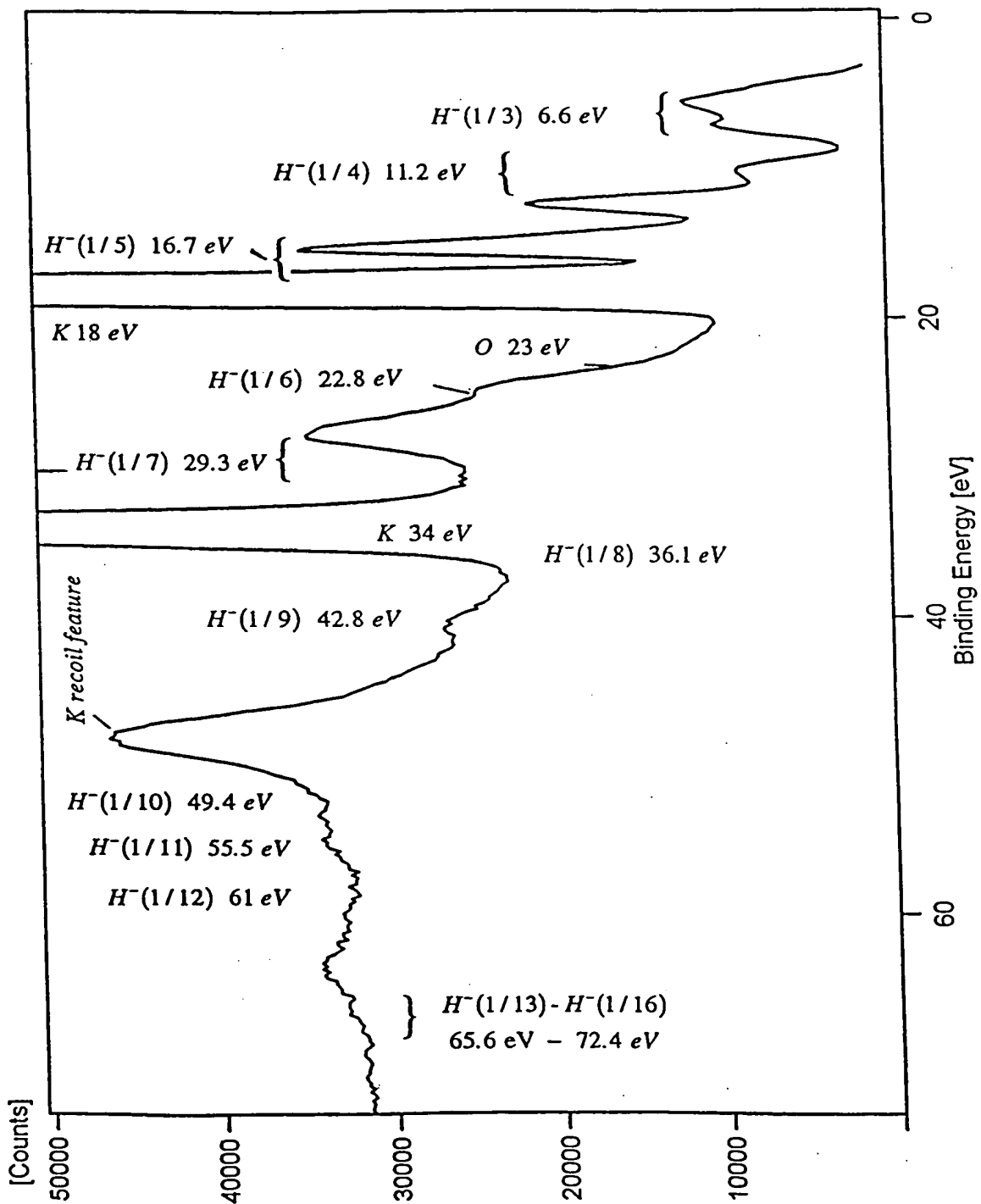


Fig. 90

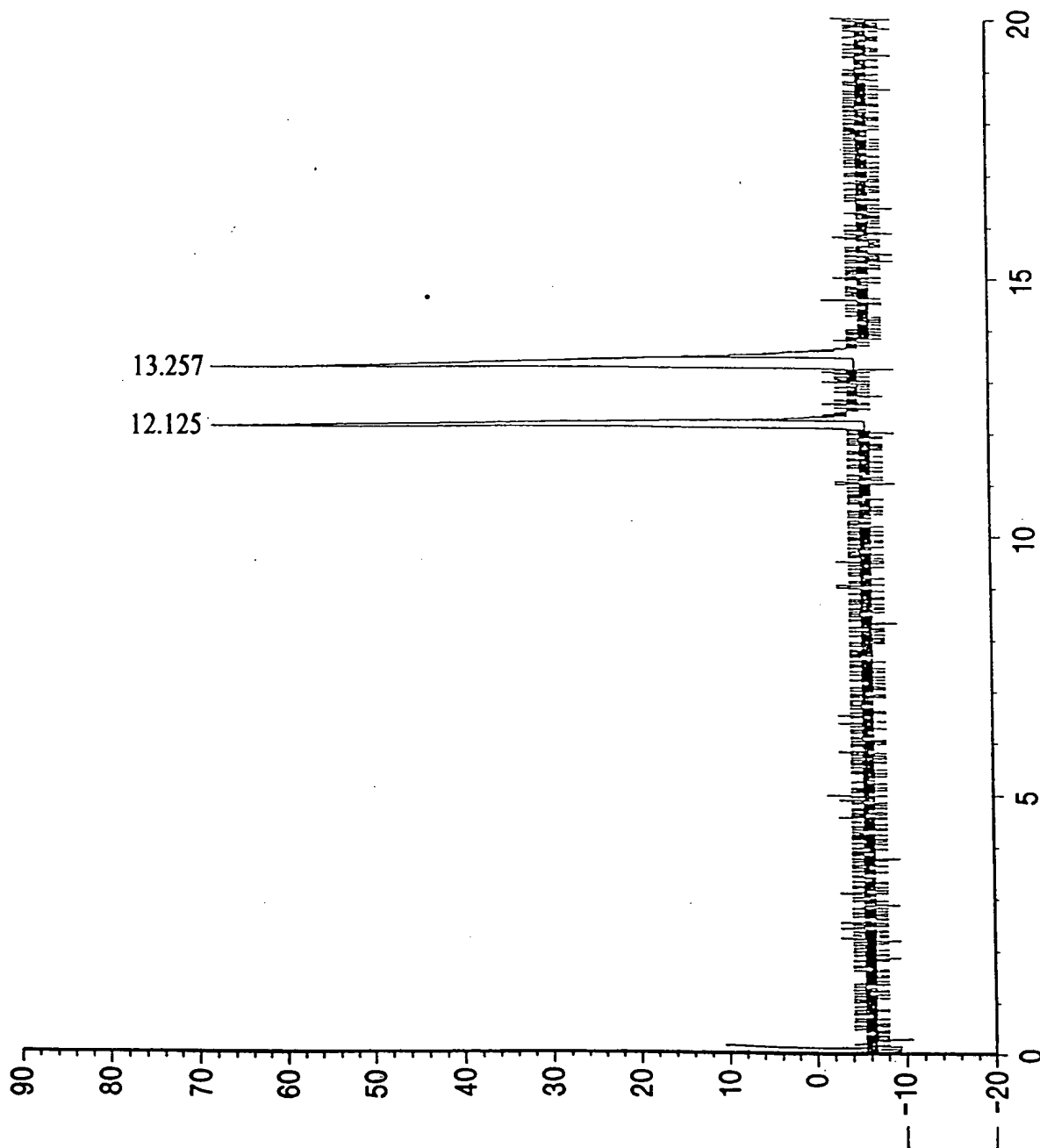


Fig. 91

ALL RIGHTS RESERVED BY THE UNITED STATES GOVERNMENT

APPROVED	FIG. 92.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

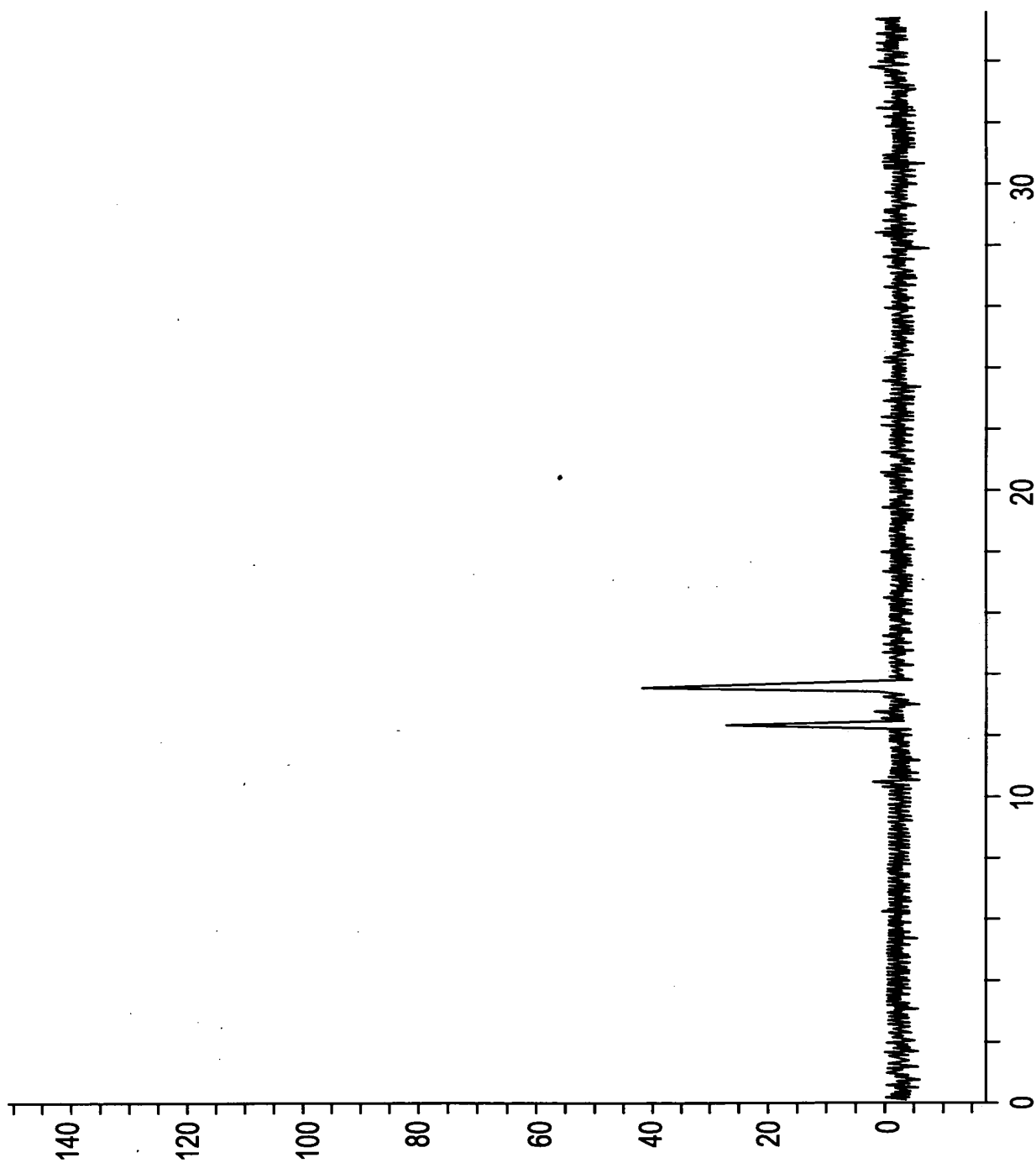


FIG. 92

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APPROVED	FIG. 93	
BY	CLASS	SUBCLASS
DRAFTSMAN		

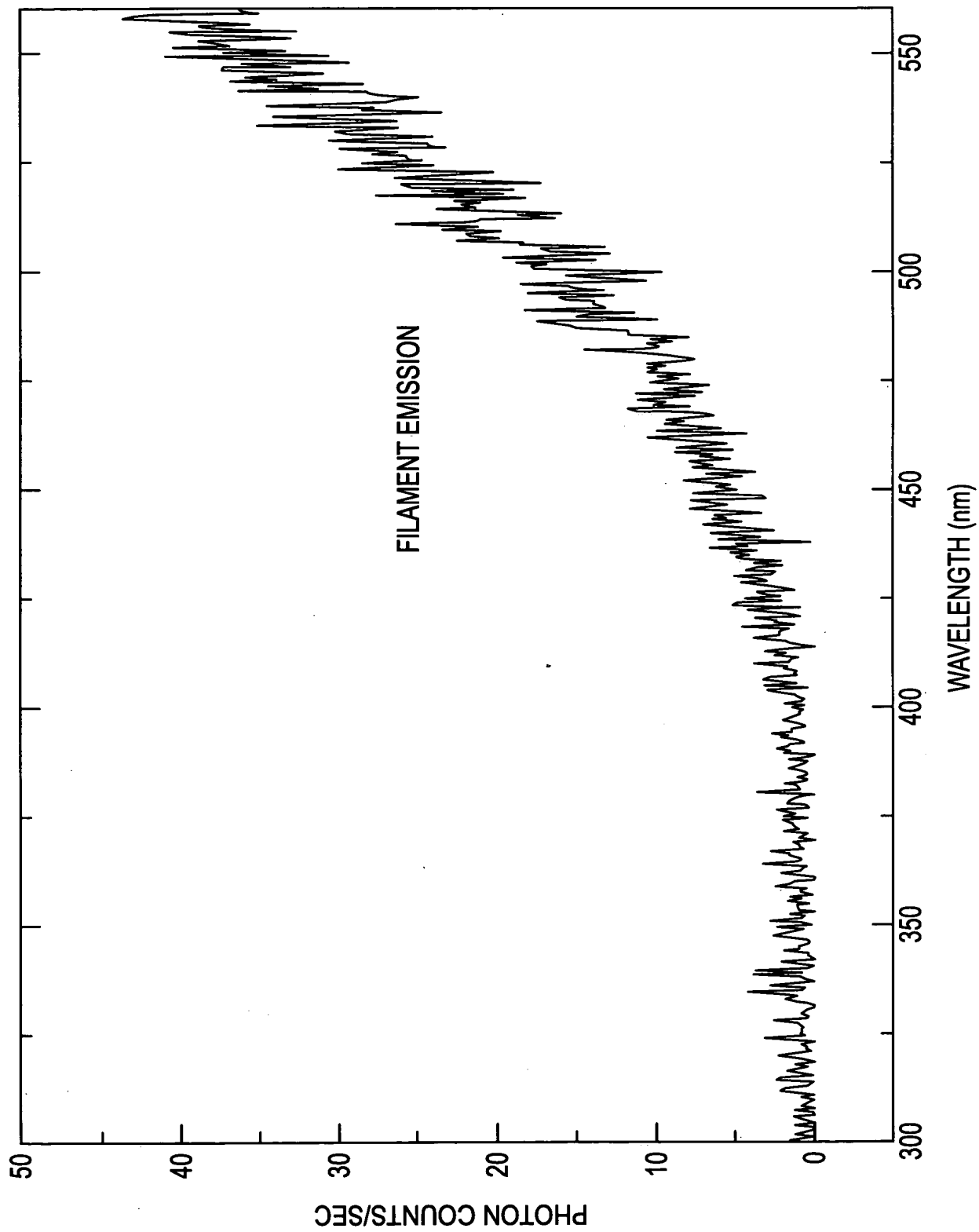


FIG. 93

... ..

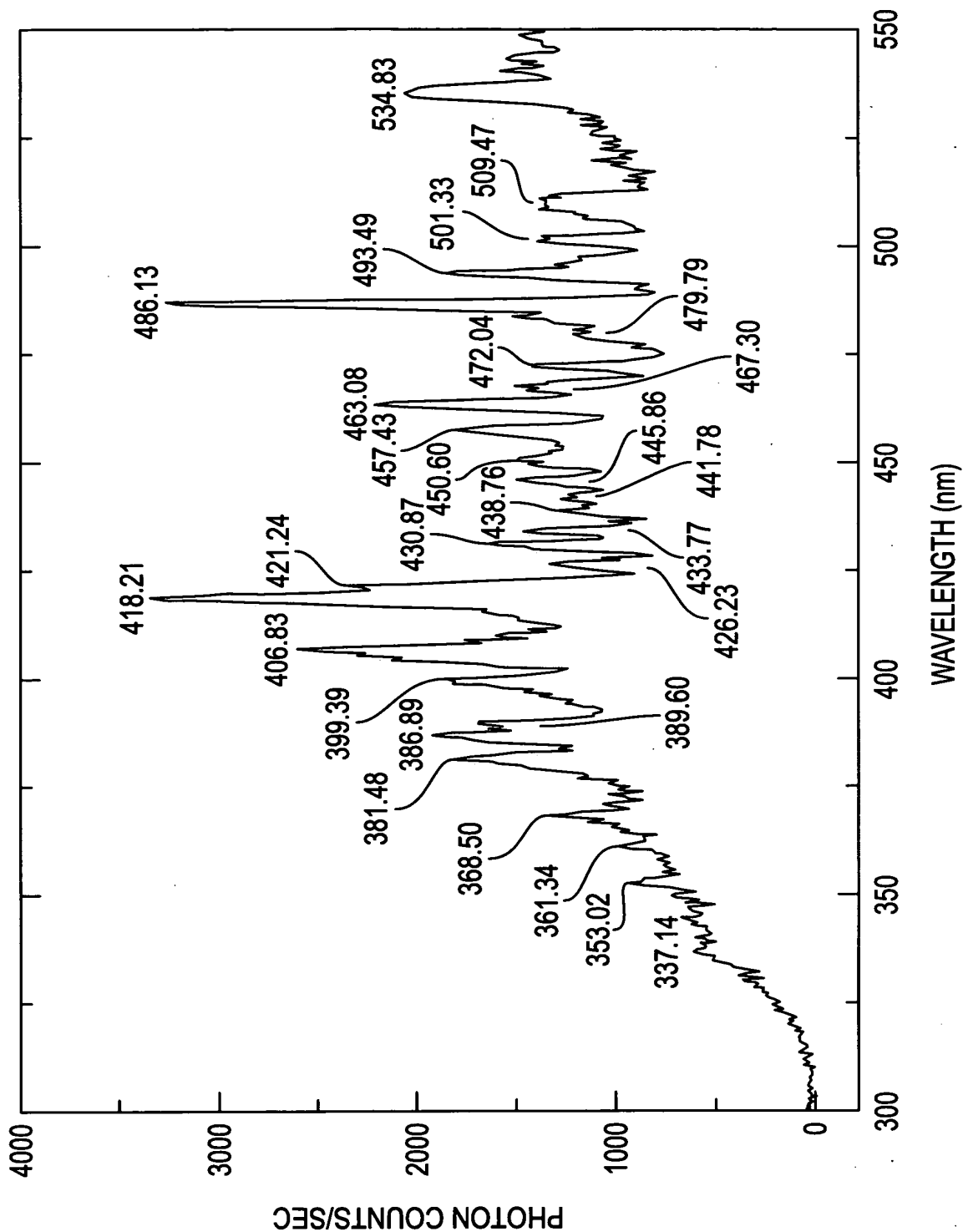


FIG. 94

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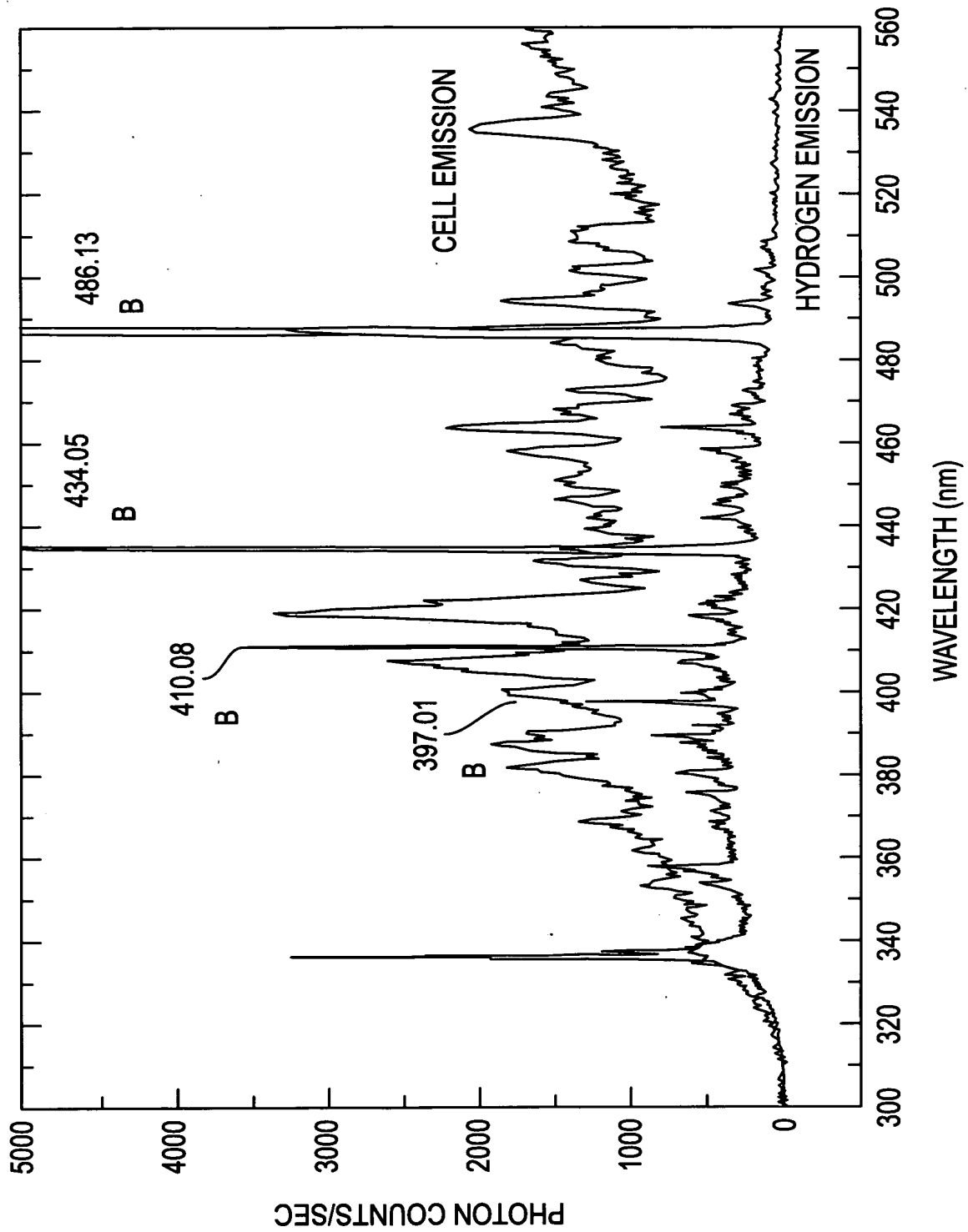


FIG. 95

FIG. 96A

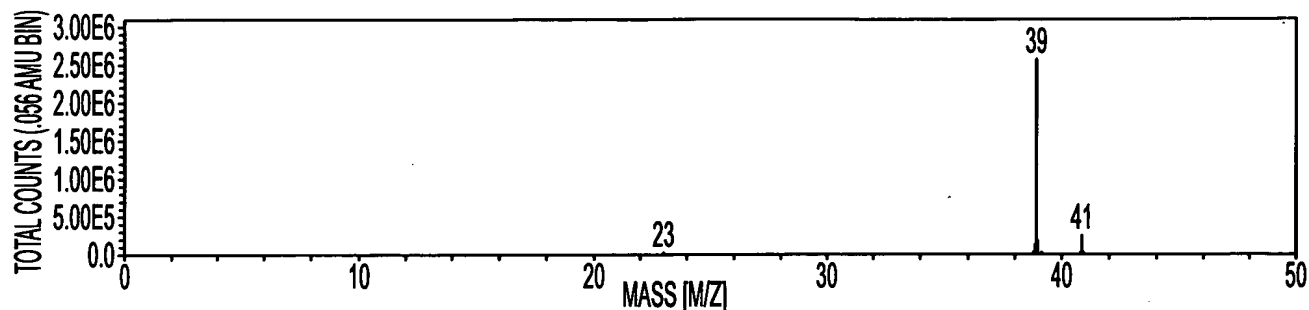


FIG. 96B

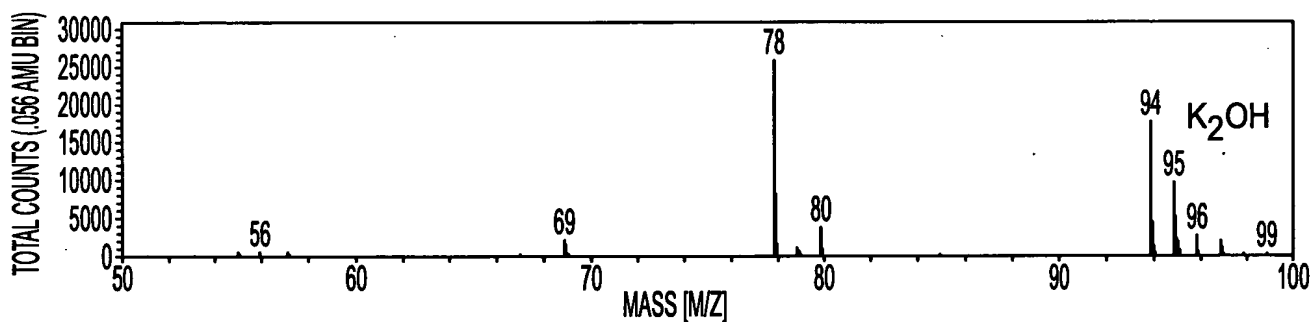


FIG. 96C

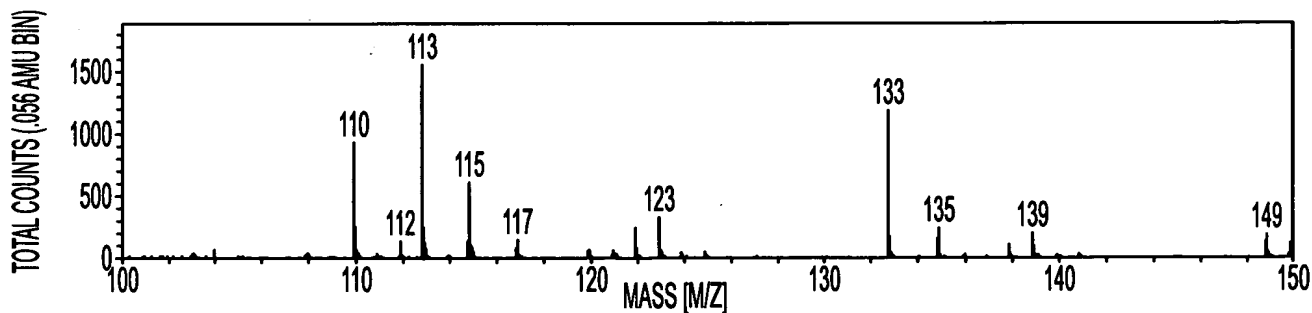
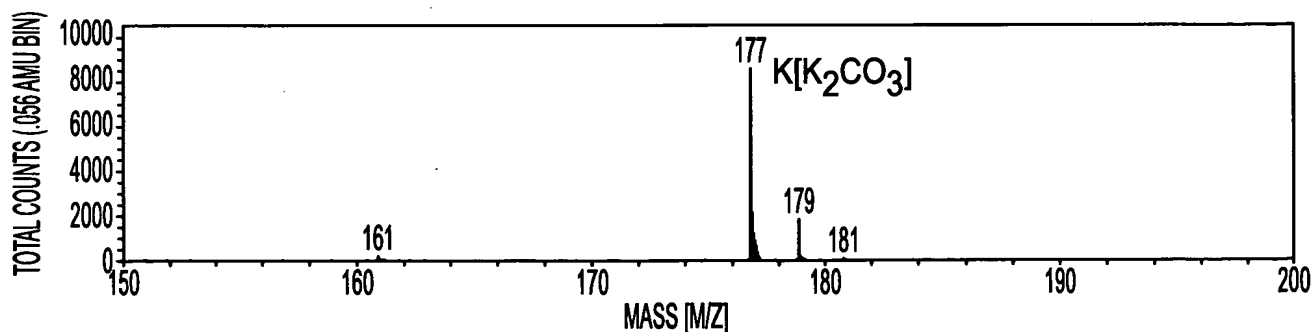


FIG. 96D



SCANNED 1

FIG. 97A

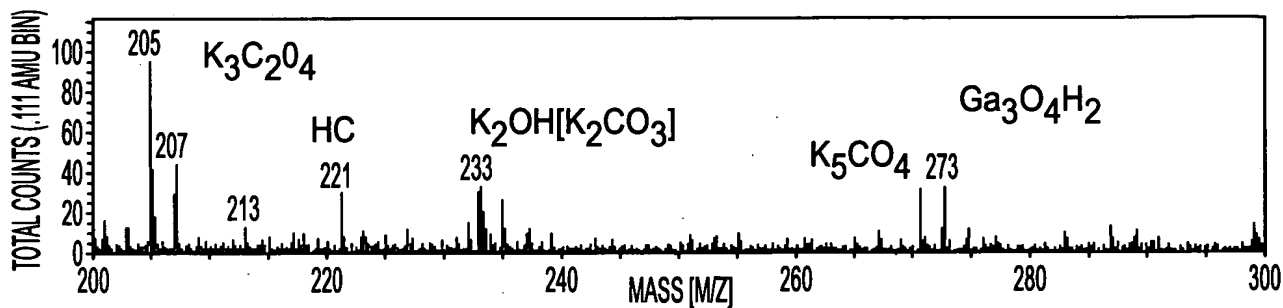


FIG. 97B

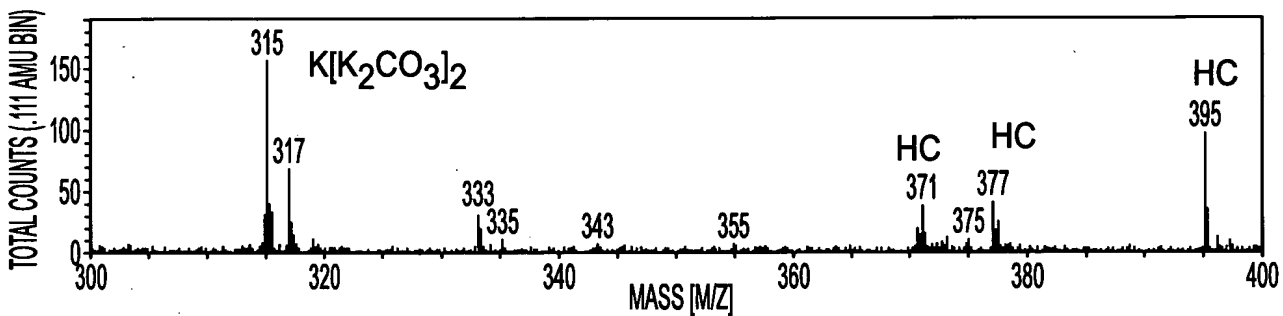


FIG. 97C

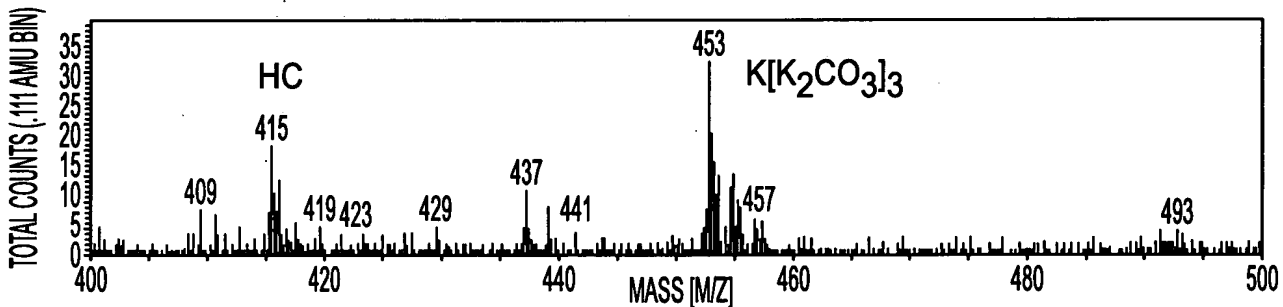


FIG. 97D

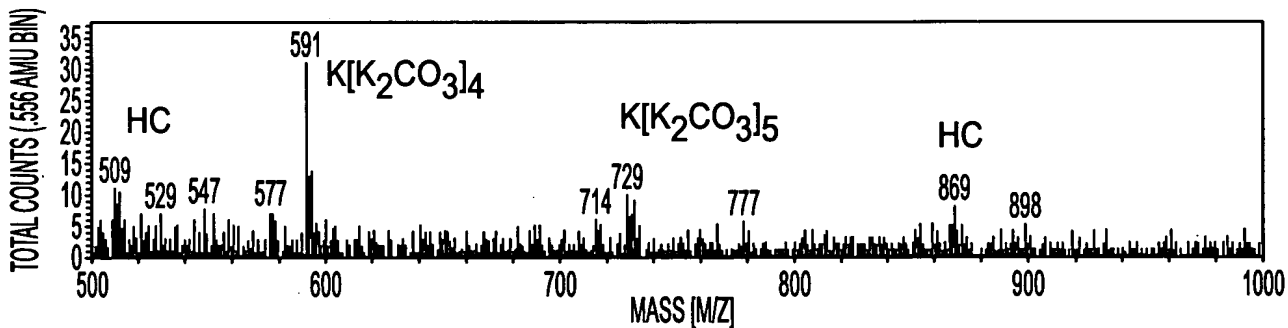


FIG. 98A

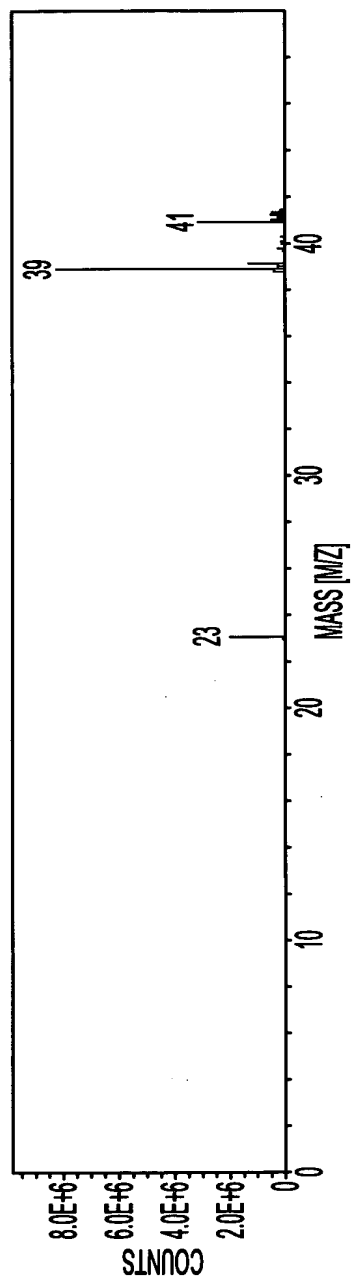
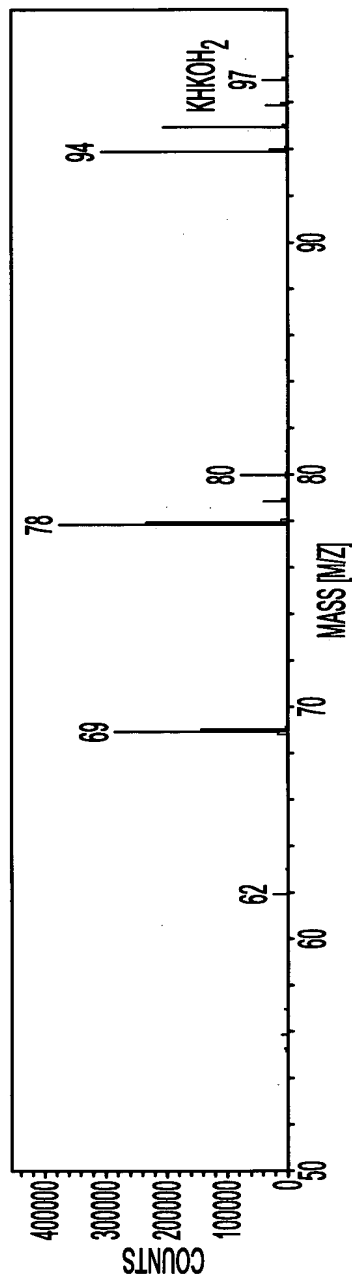


FIG. 98B

[illegible]

APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 98C

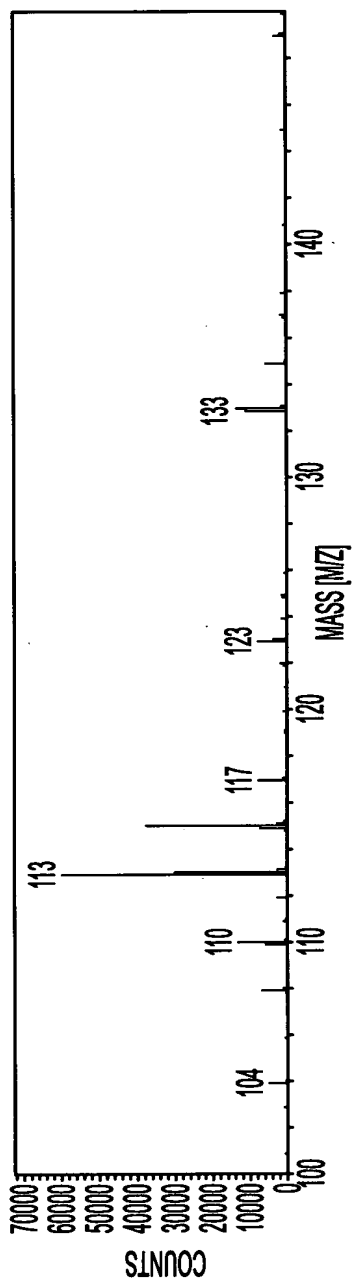


FIG. 98D

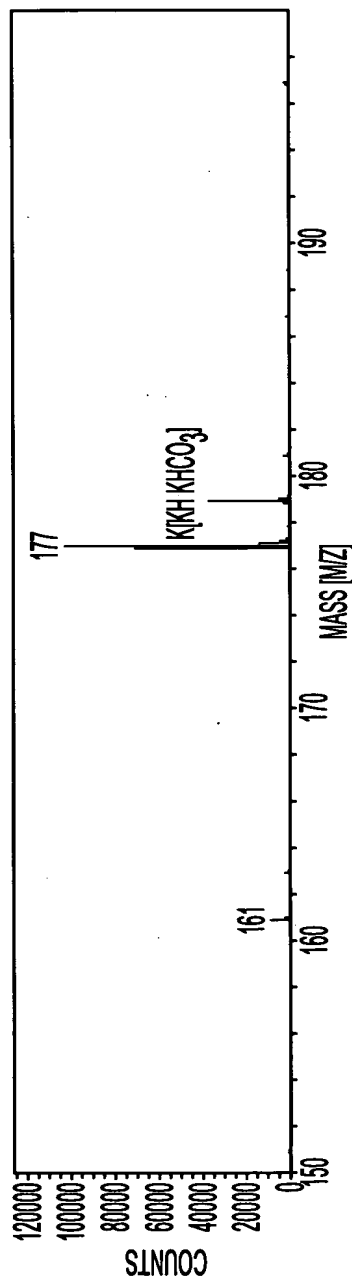


FIG. 99A

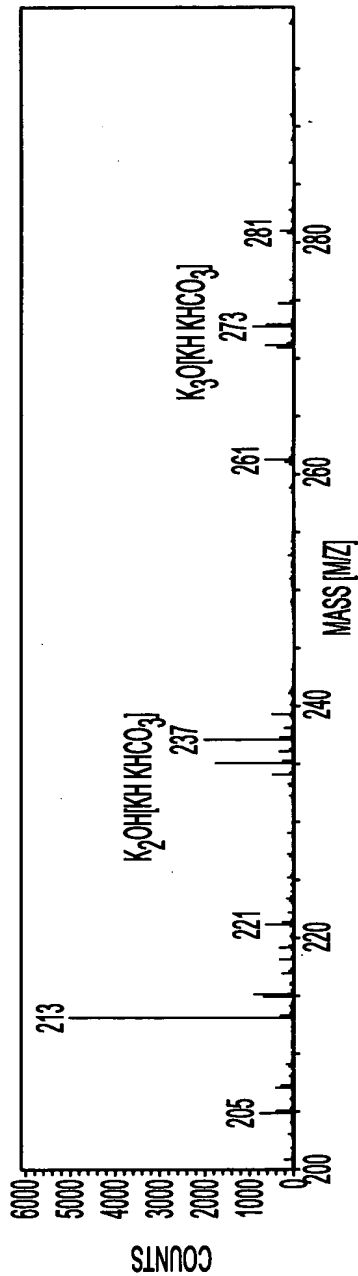


FIG. 99B

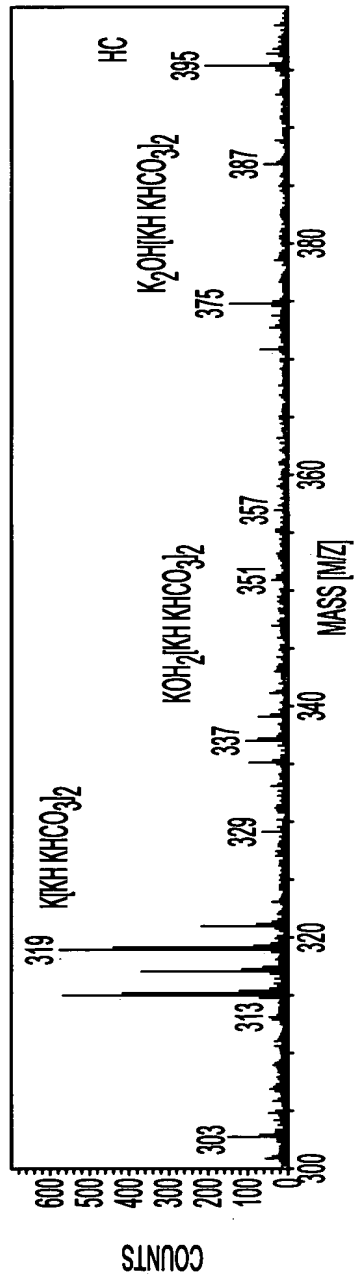


FIG. 99C

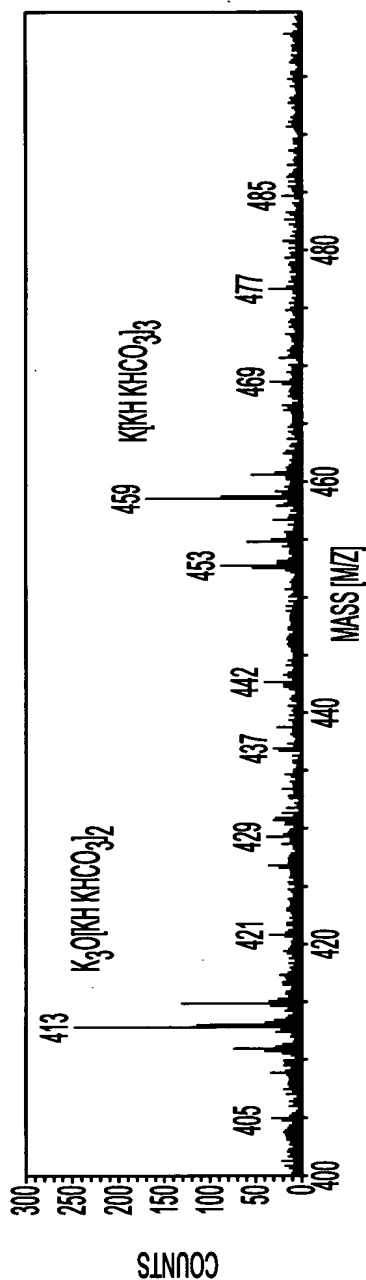
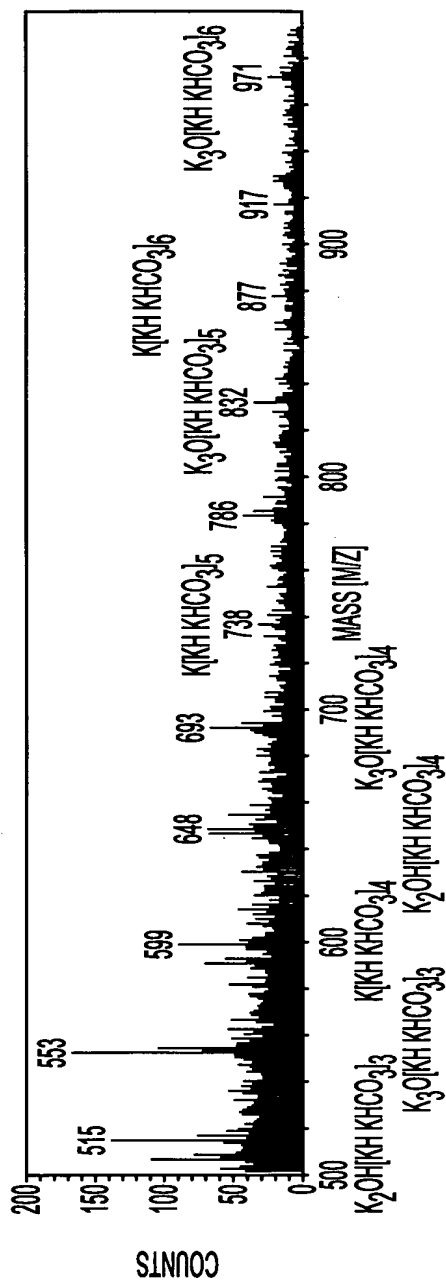


FIG. 99D



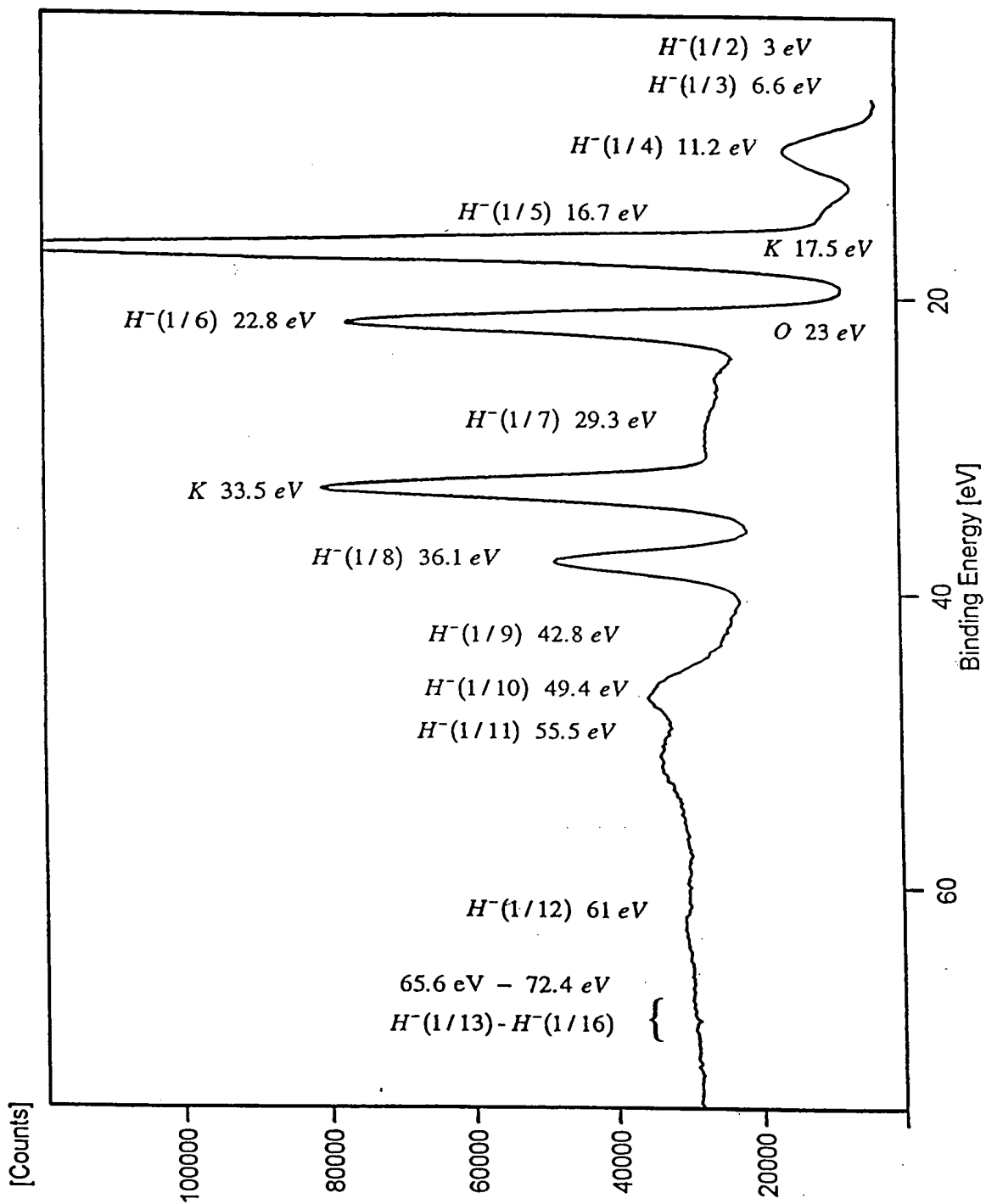


Fig. 100

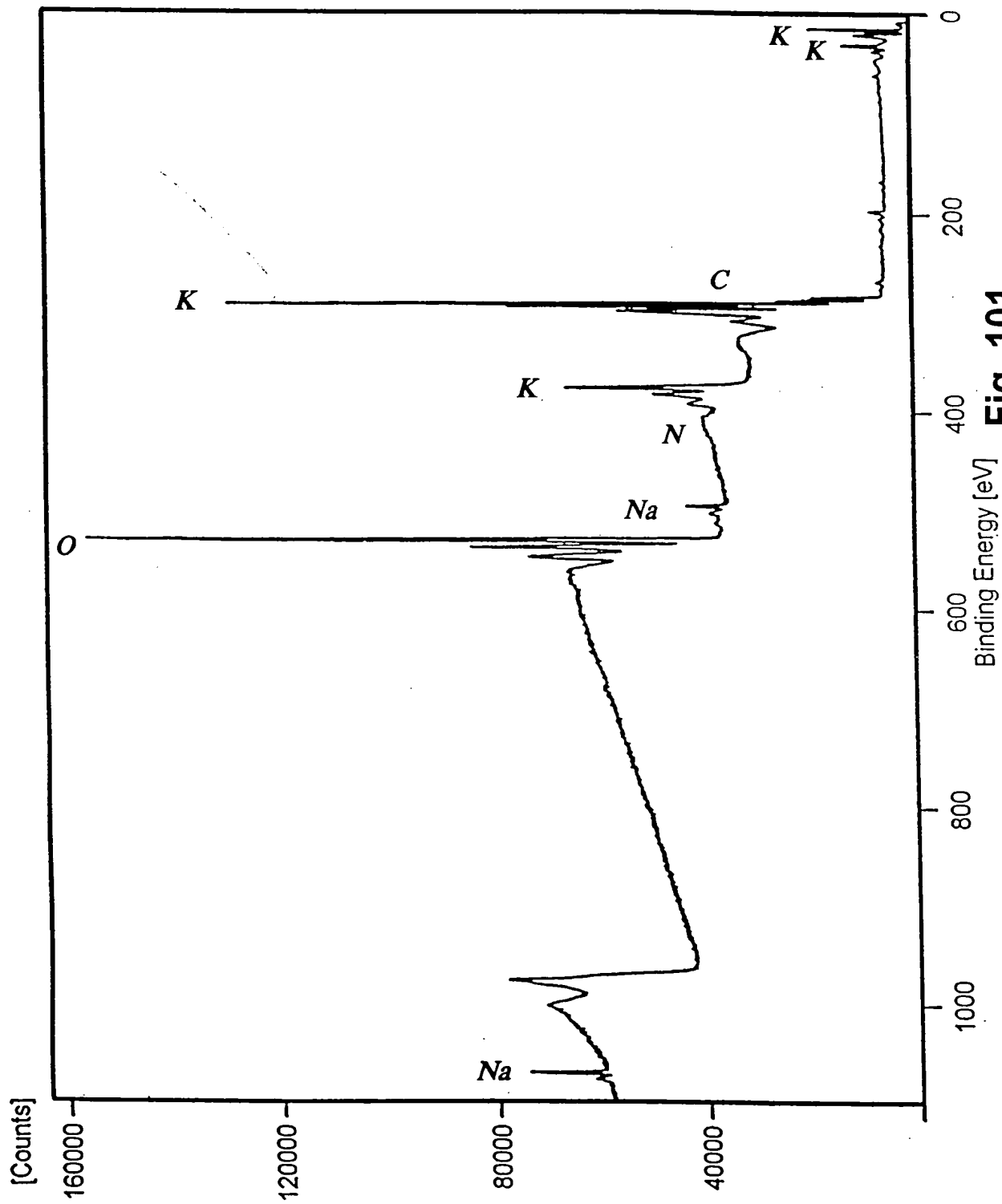
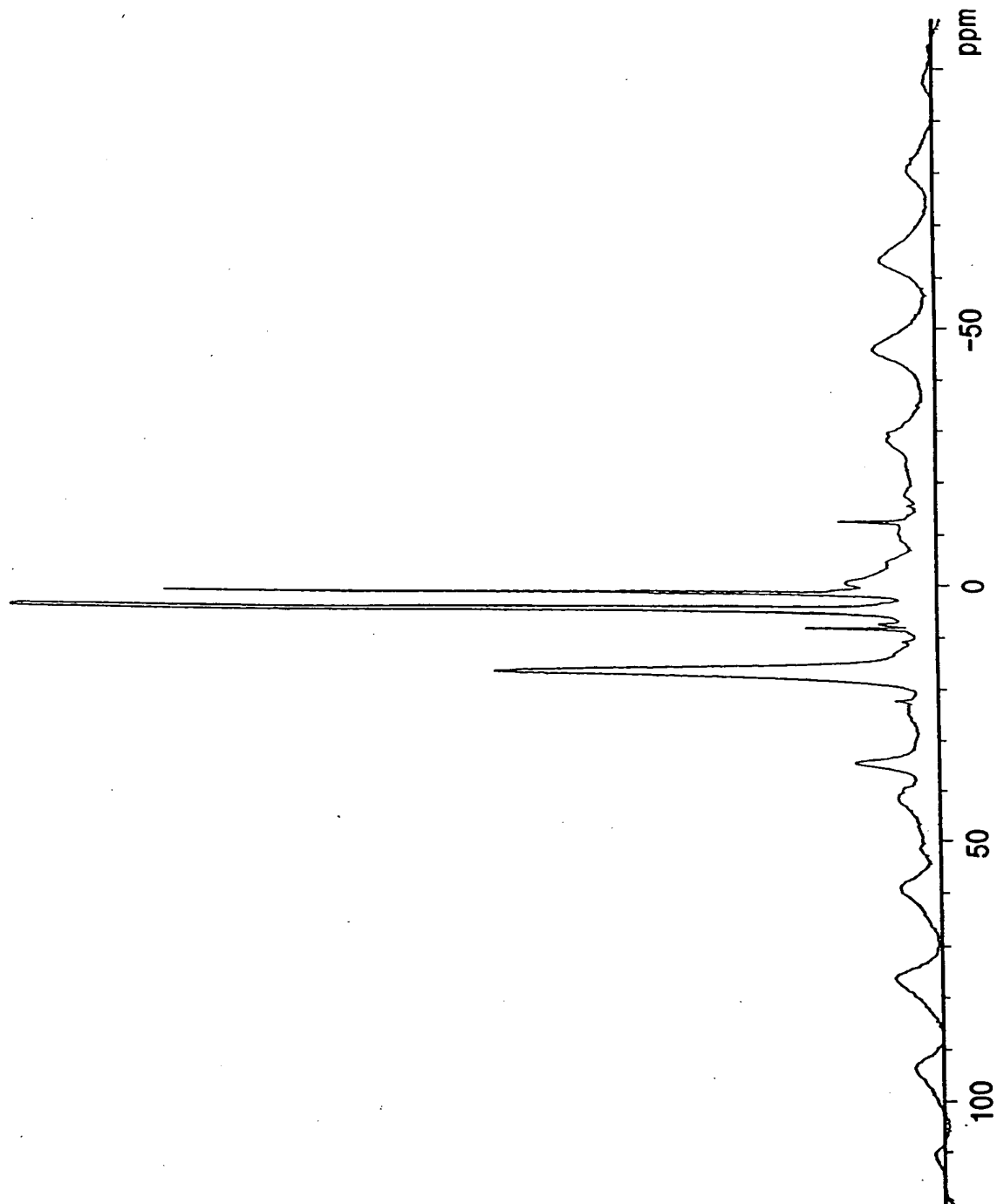


Fig. 101



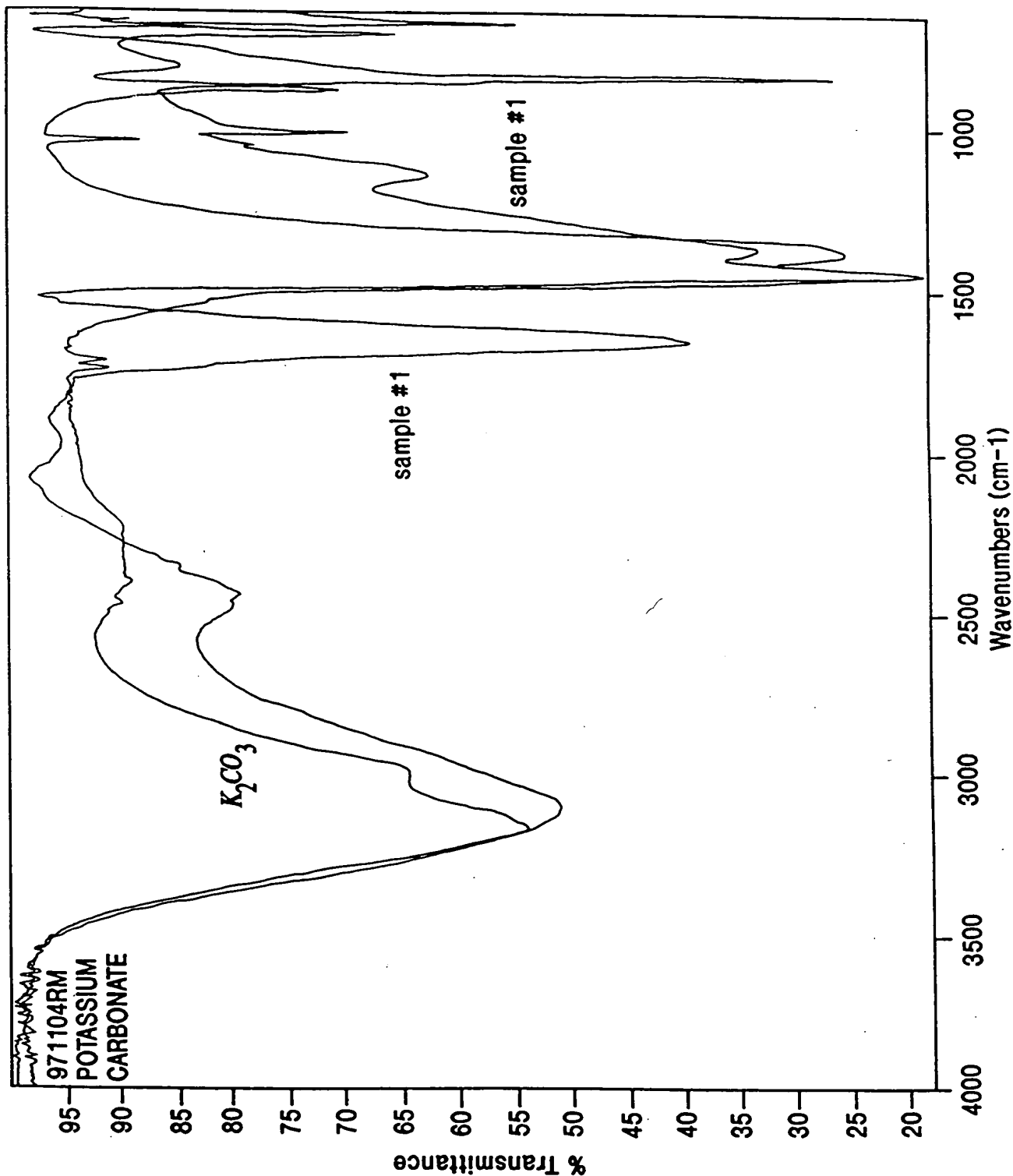


Fig. 103

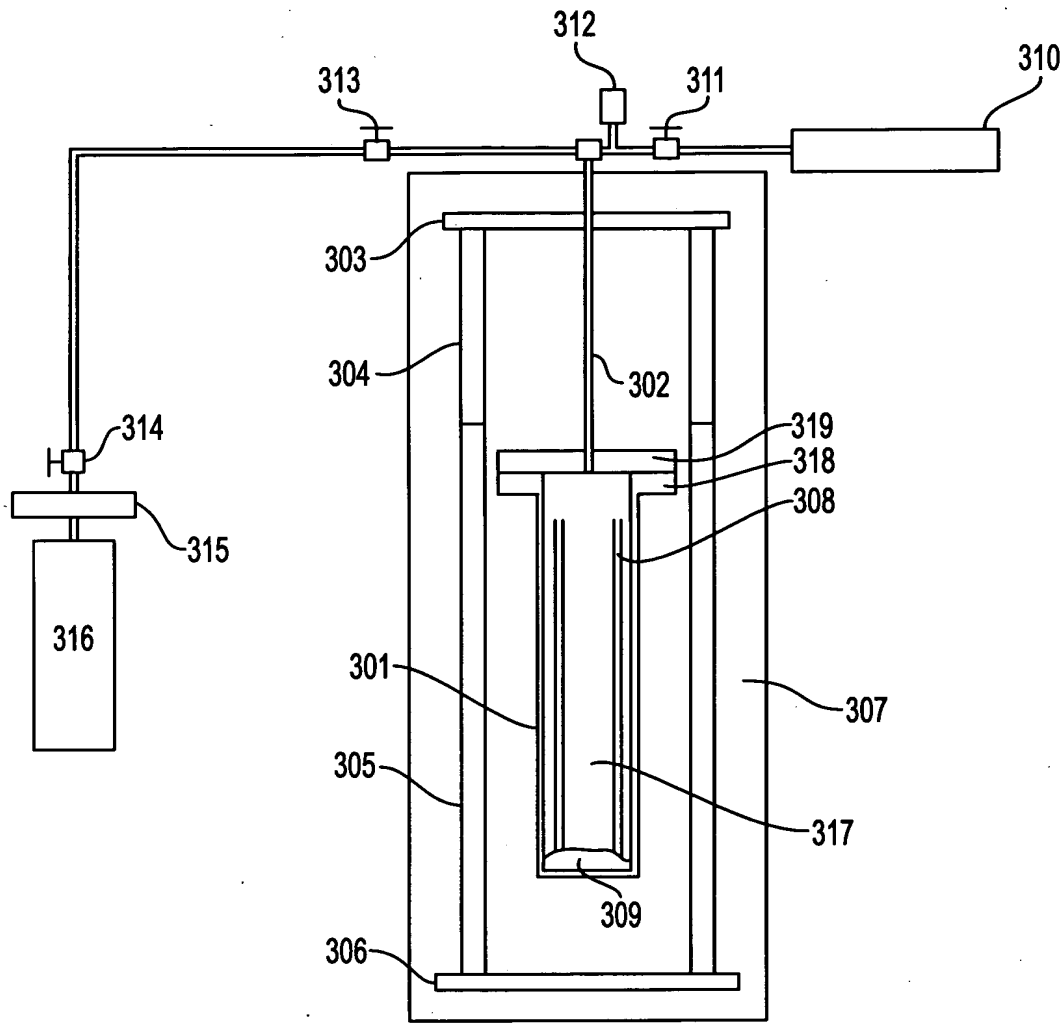


FIG. 104

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APPROVED	C. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 105A

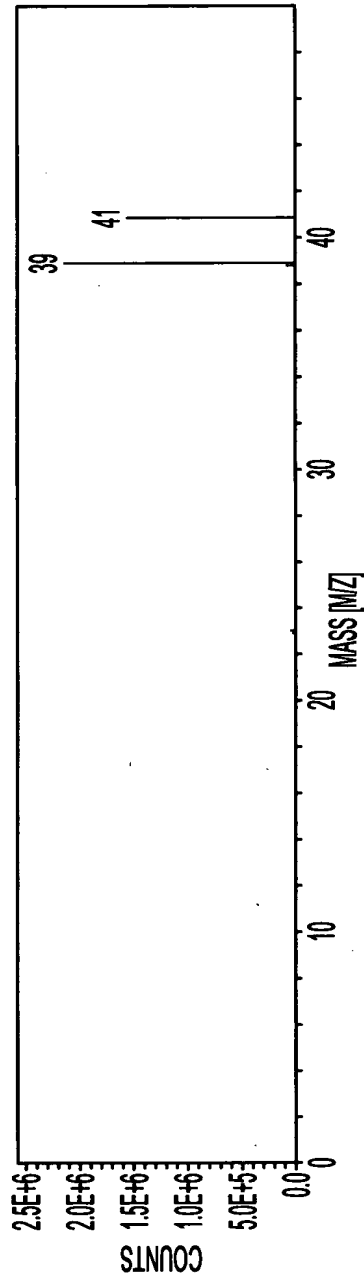
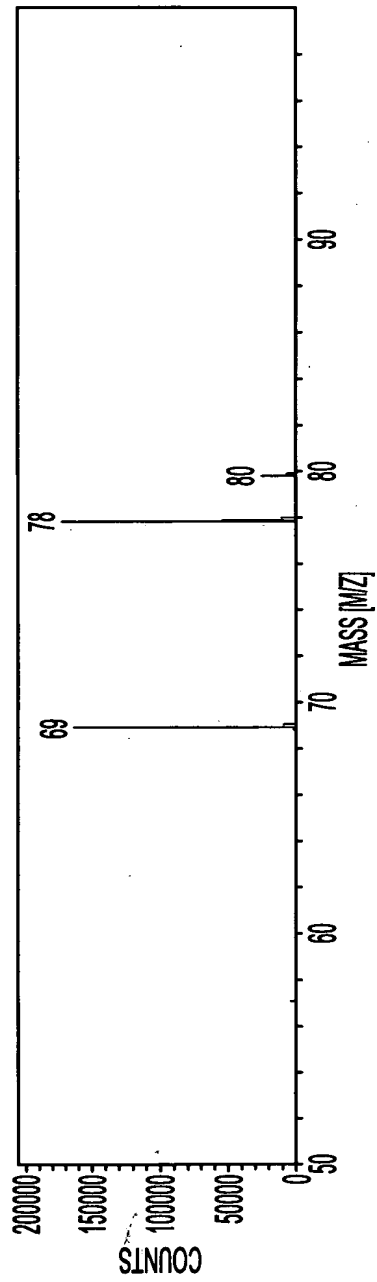


FIG. 105B



APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 105C

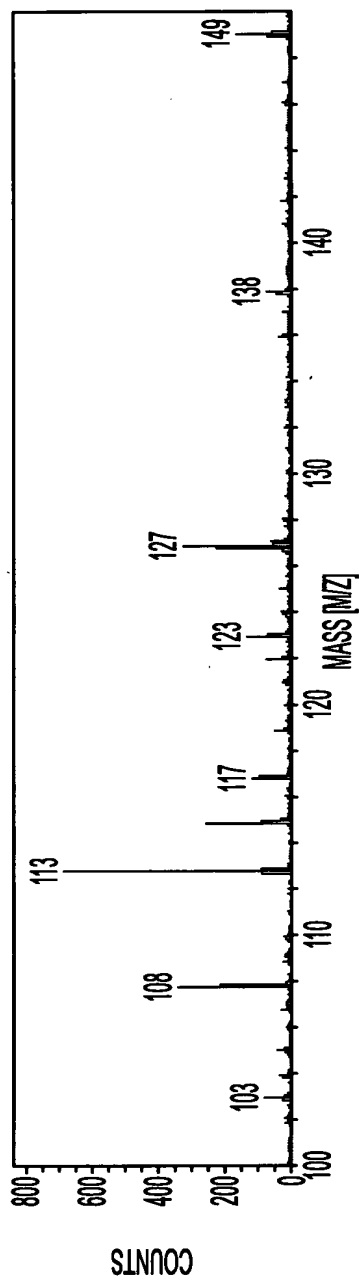
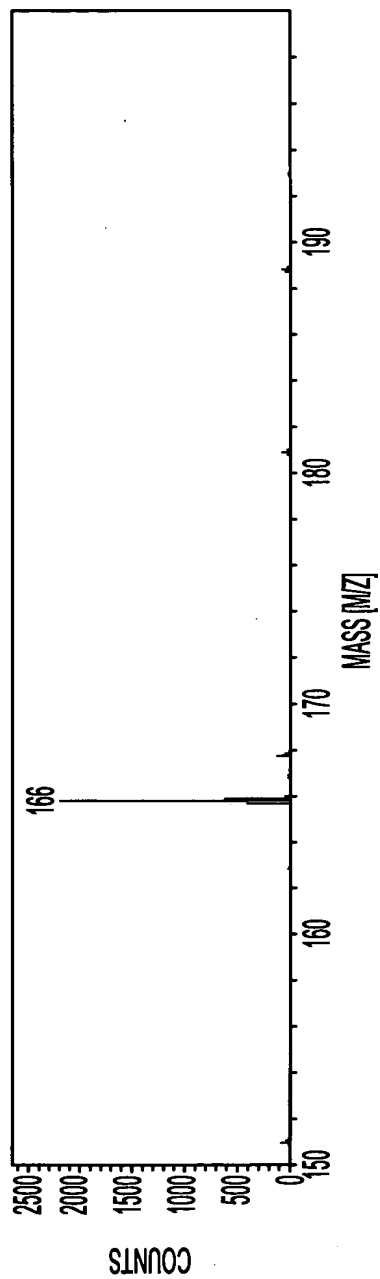


FIG. 105D



APPROVED	FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 106C

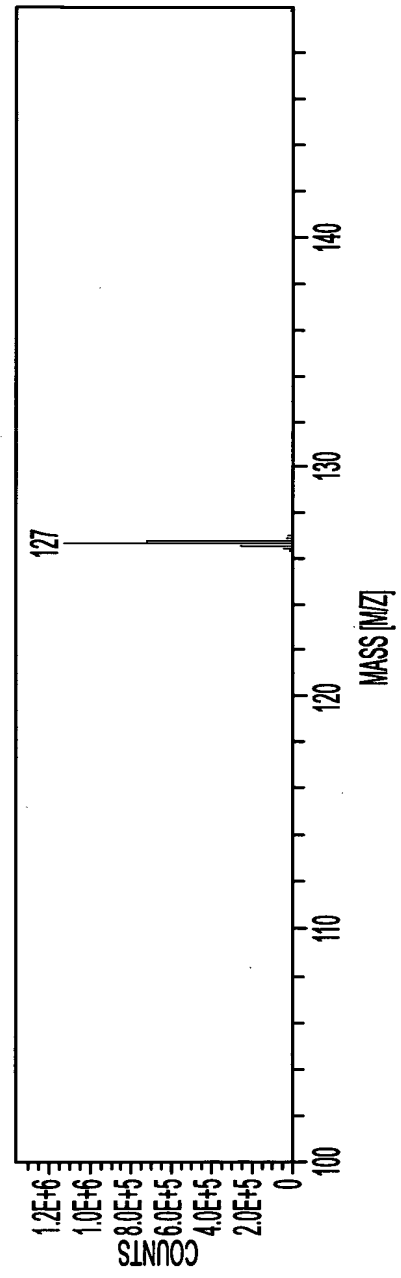
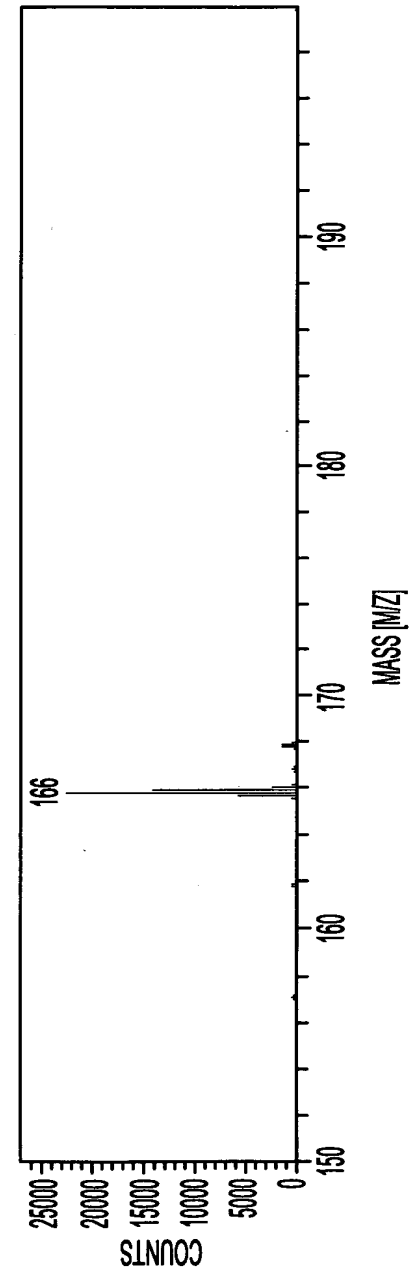


FIG. 106D



... ..

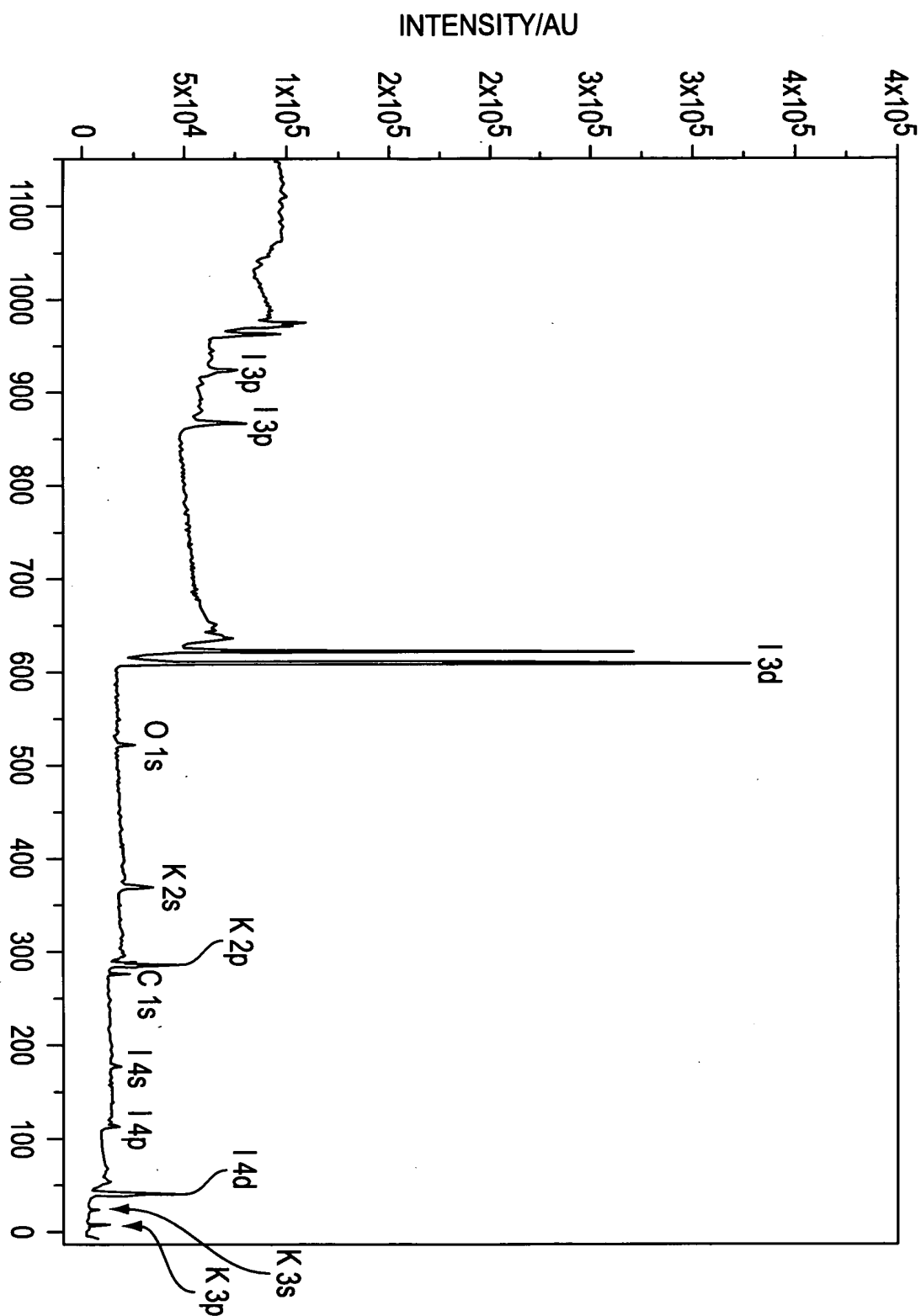


FIG. 107

[illegible]

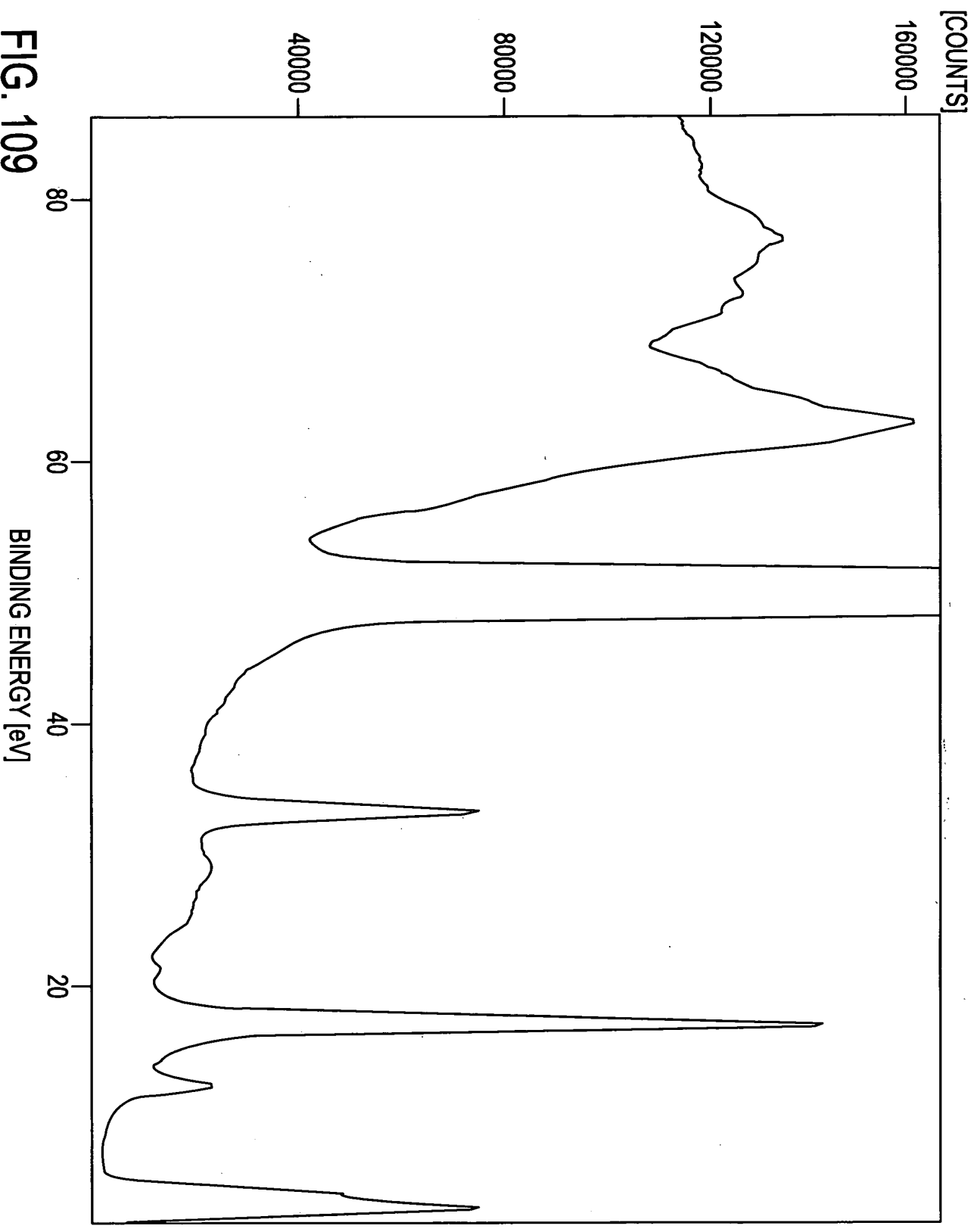


FIG. 109

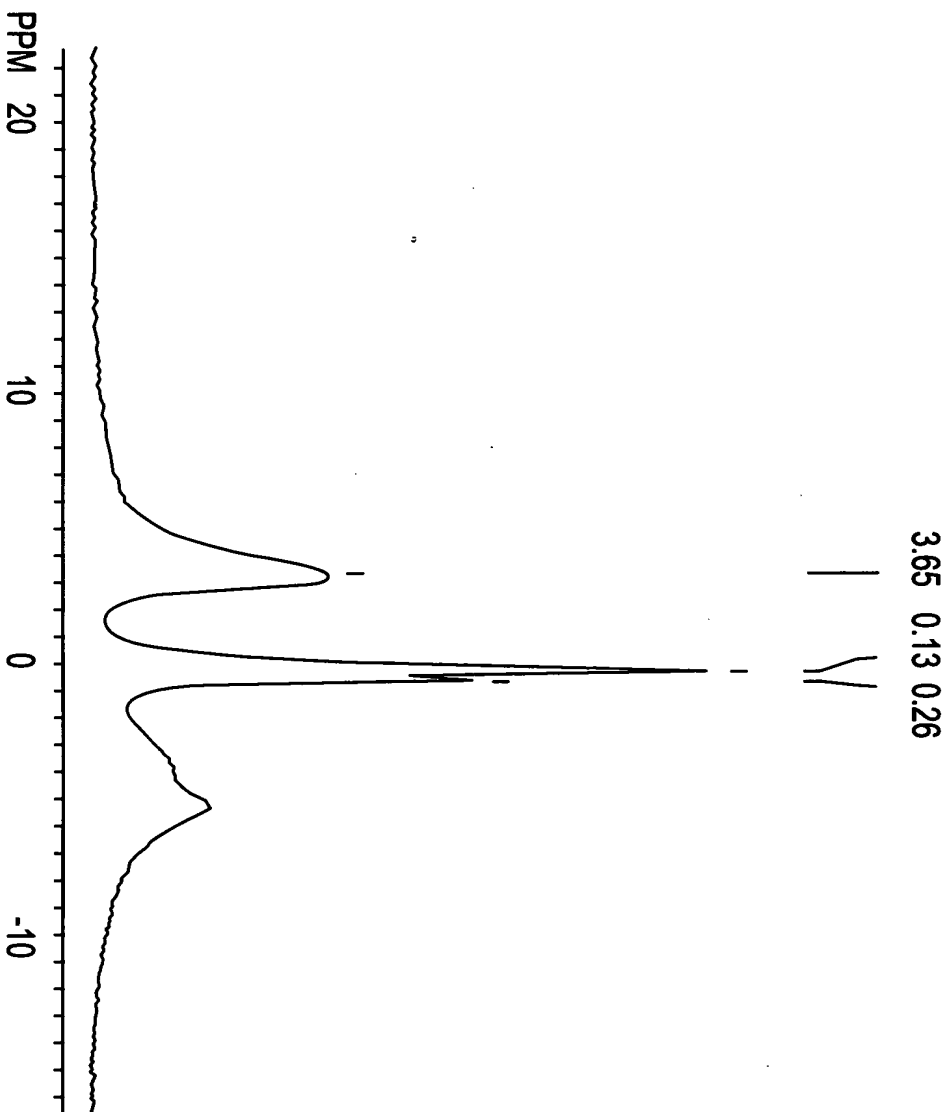


FIG. 110

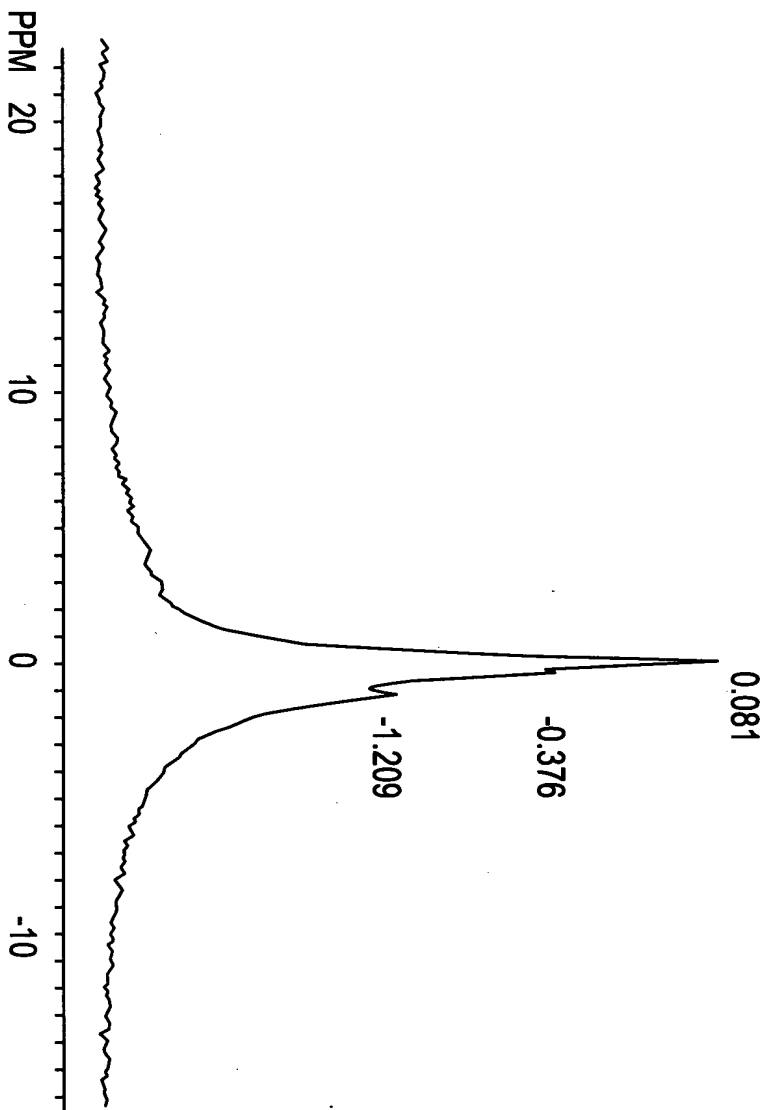


FIG. 111

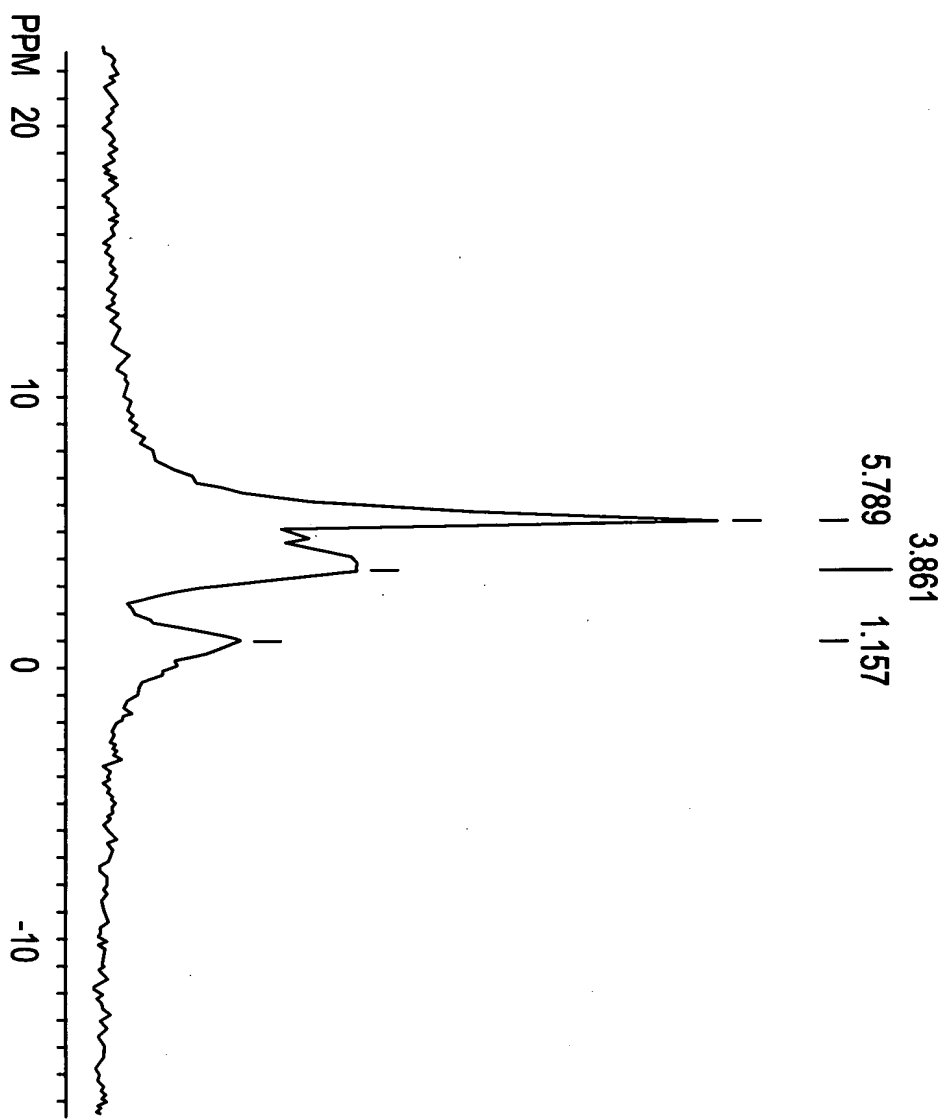


FIG. 112

FIG. 112

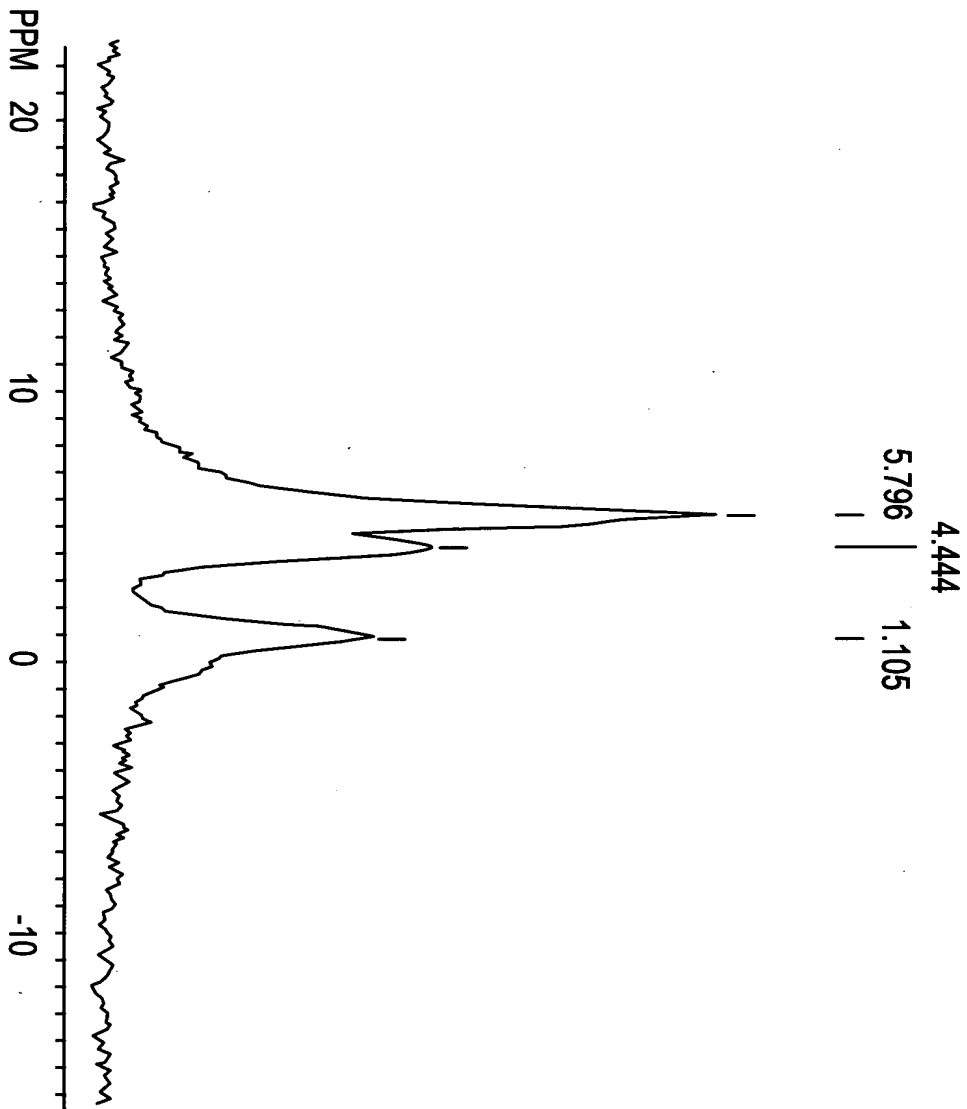


FIG. 113

5.782
1.111

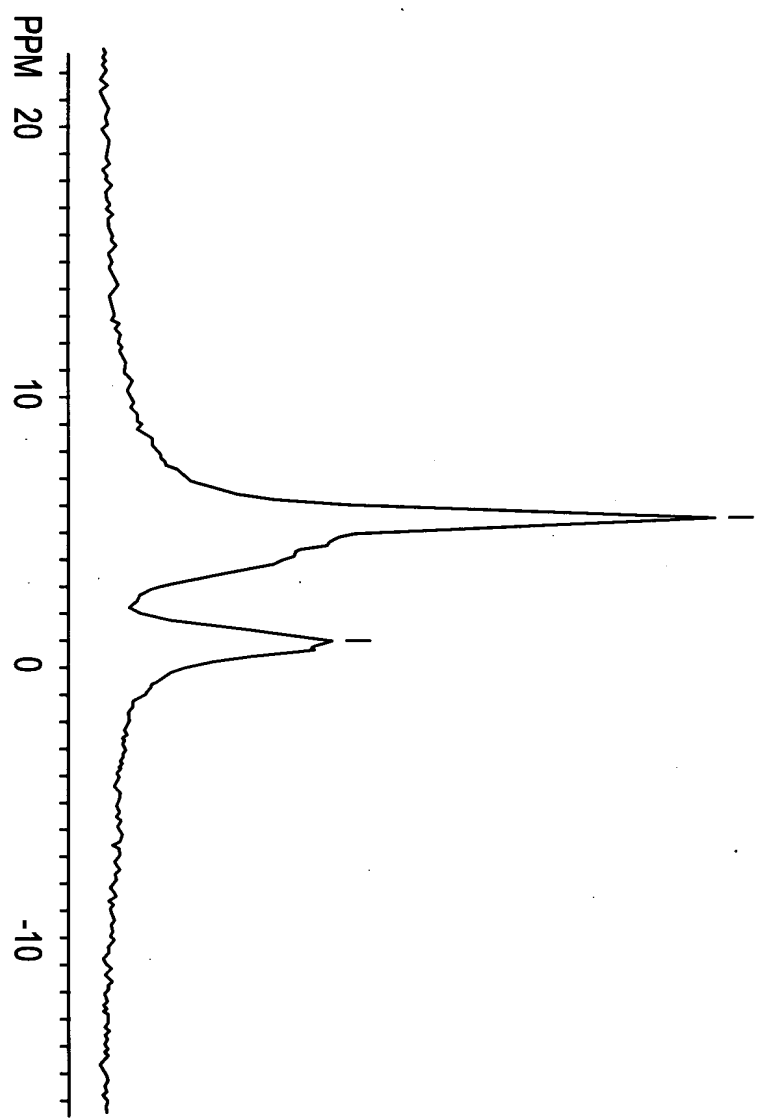


FIG. 114

FIG. 114

5.785 1.197

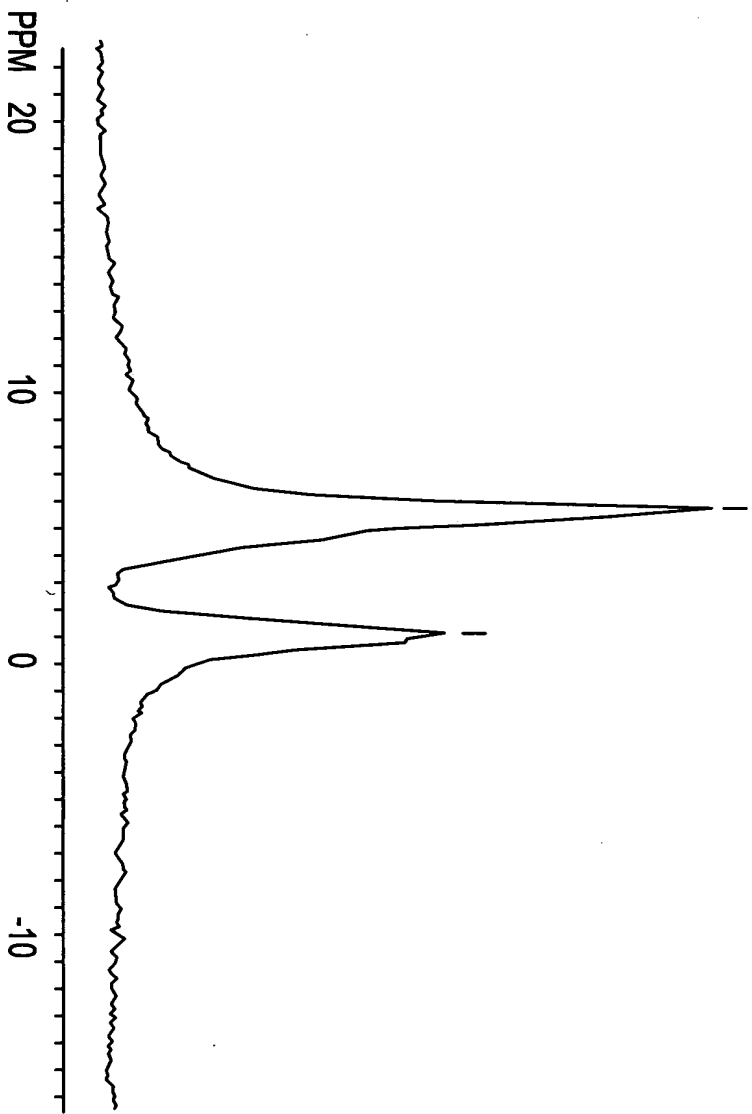


FIG. 115

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

FIG. 116

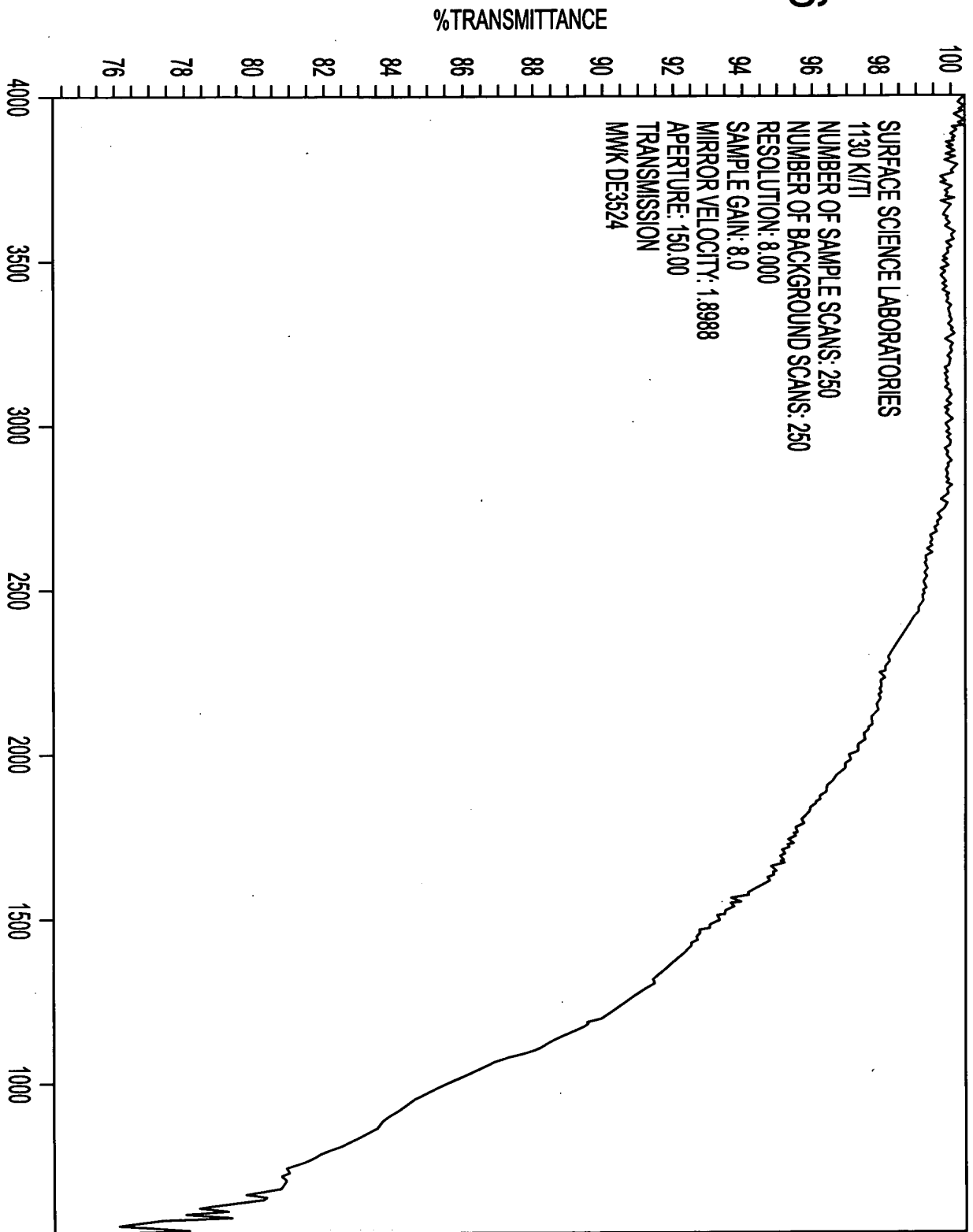
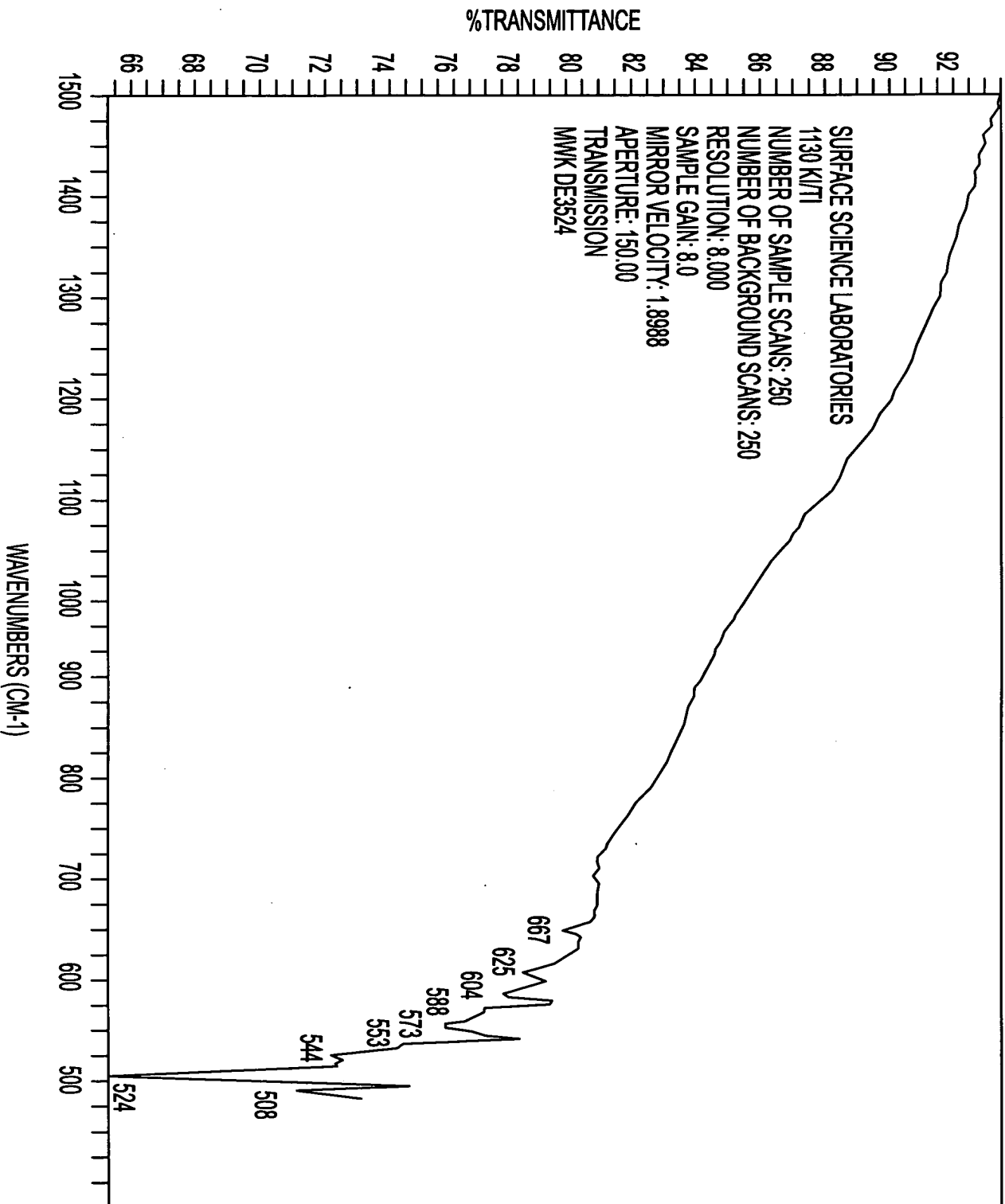


FIG. 117



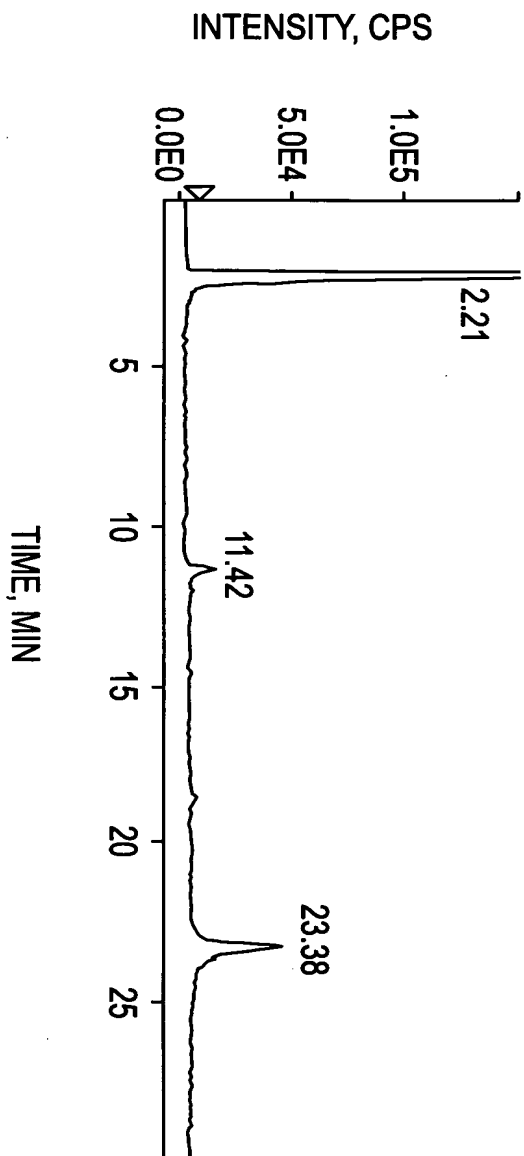


FIG. 118

APPROVED	BY	DRAFTSMAN
CLASS	SUBCLASS	

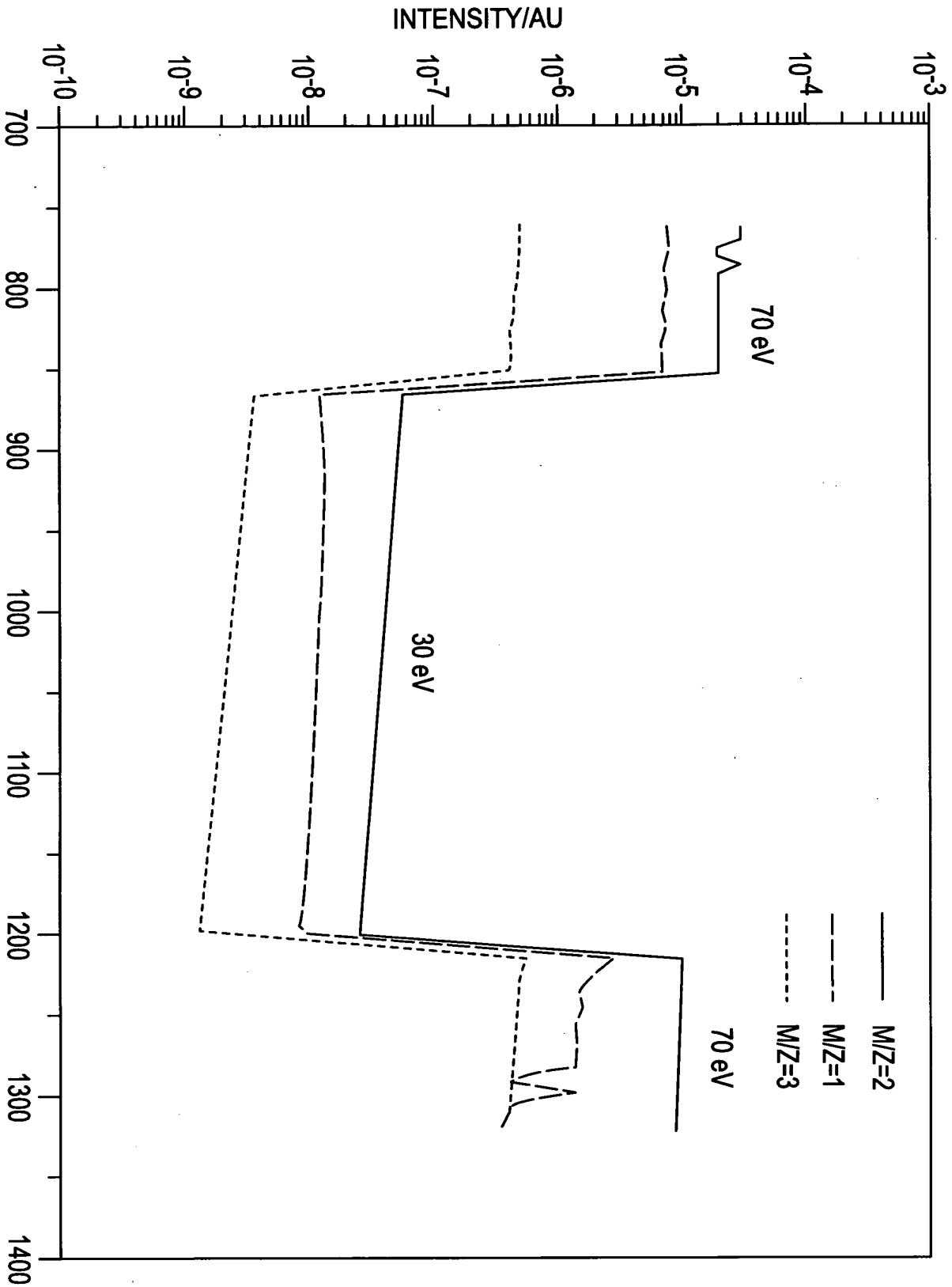


FIG. 121

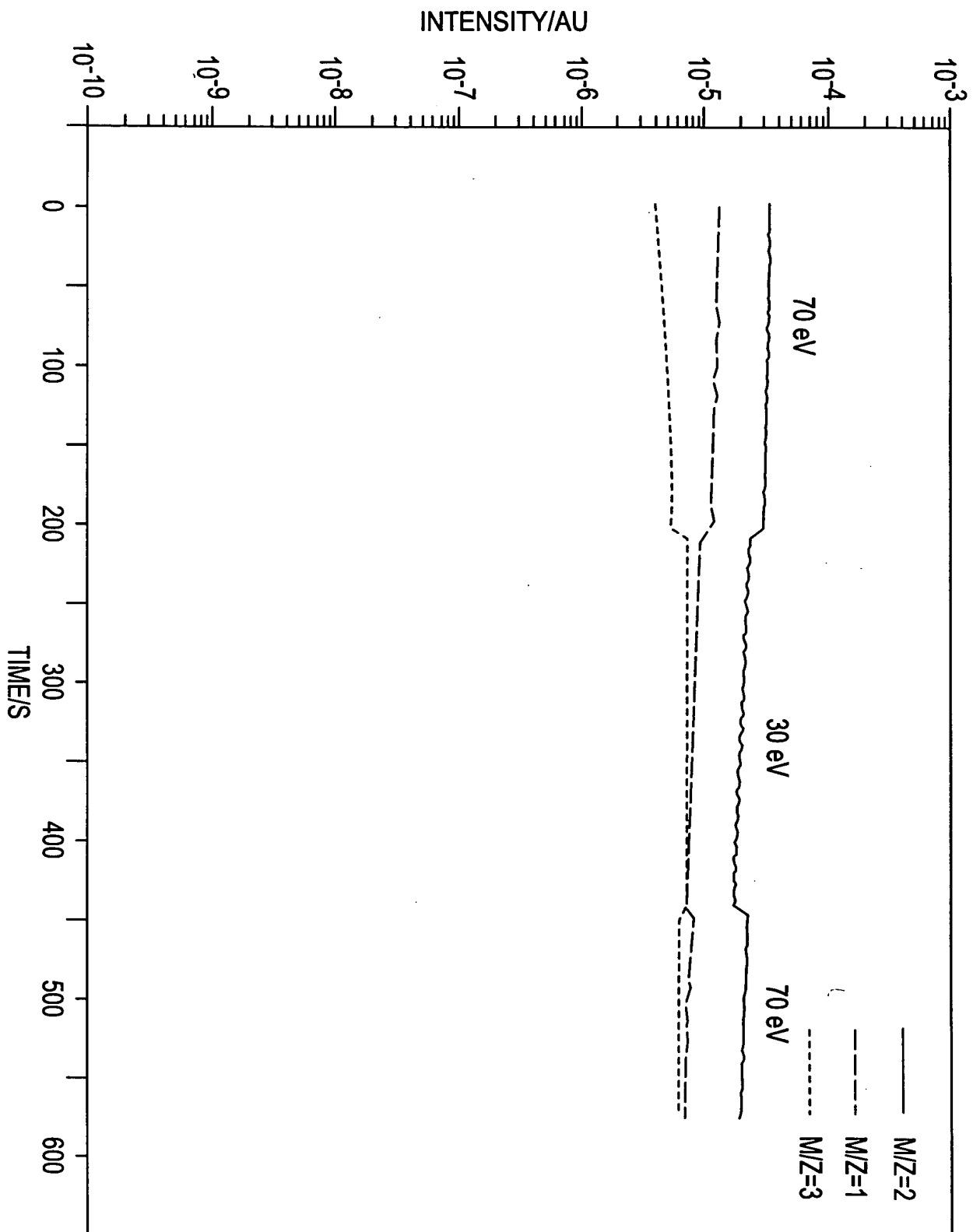


FIG. 122